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Get Blender

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För att ta hem ett avancerat gratis 3D-program så gå till:
blender.org
och klicka på Download.

Blender 2.64a

Blender 2.64a is the latest release from the Blender Foundation. To download it, please select your platform and location. **Blender is Free & Open Source Software.**

Blender 2.64a was released on October 10th 2012

Windows 32 bits

Support BL
DVDs or B

[Don](#)

platform and location. **Blender is Free & Open Source Software.**

Blender 2.64a was released on October 10th 2012

Windows 32 bits



[Blender 2.64a Installer \(31 MB\)](#)

Requires Windows XP/Vista/7

USA | Germany | NL 1 | NL 2



[Blender 2.64a Zip Archive \(43 MB\)](#)

Requires Windows XP/Vista/7

USA | Germany | NL 1 | NL 2

Blender 2.64a 7z Archive (29 MB)

USA | Germany | NL 1 | NL 2

Blender finns för Windows både som 32-bitars och 64-bitars program. Välj det som passar din dator. För att installera programmet så klicka på Installer.

Windows 64 bits



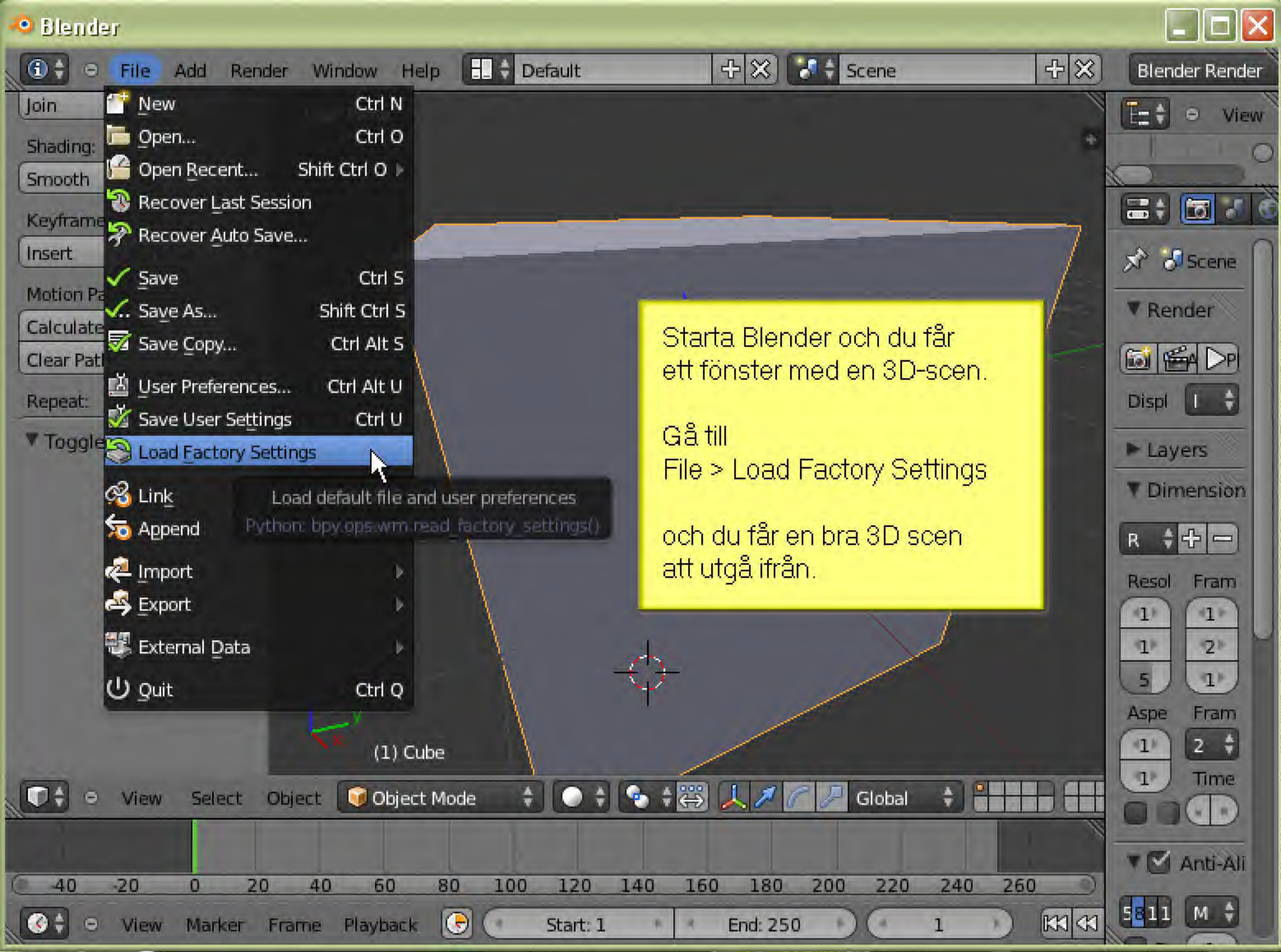
[Blender 2.64a Installer \(36 MB\)](#)

Requires Windows XP/Vista/7 64bit



[Blender 2.64a Zip Archive \(51 MB\)](#)

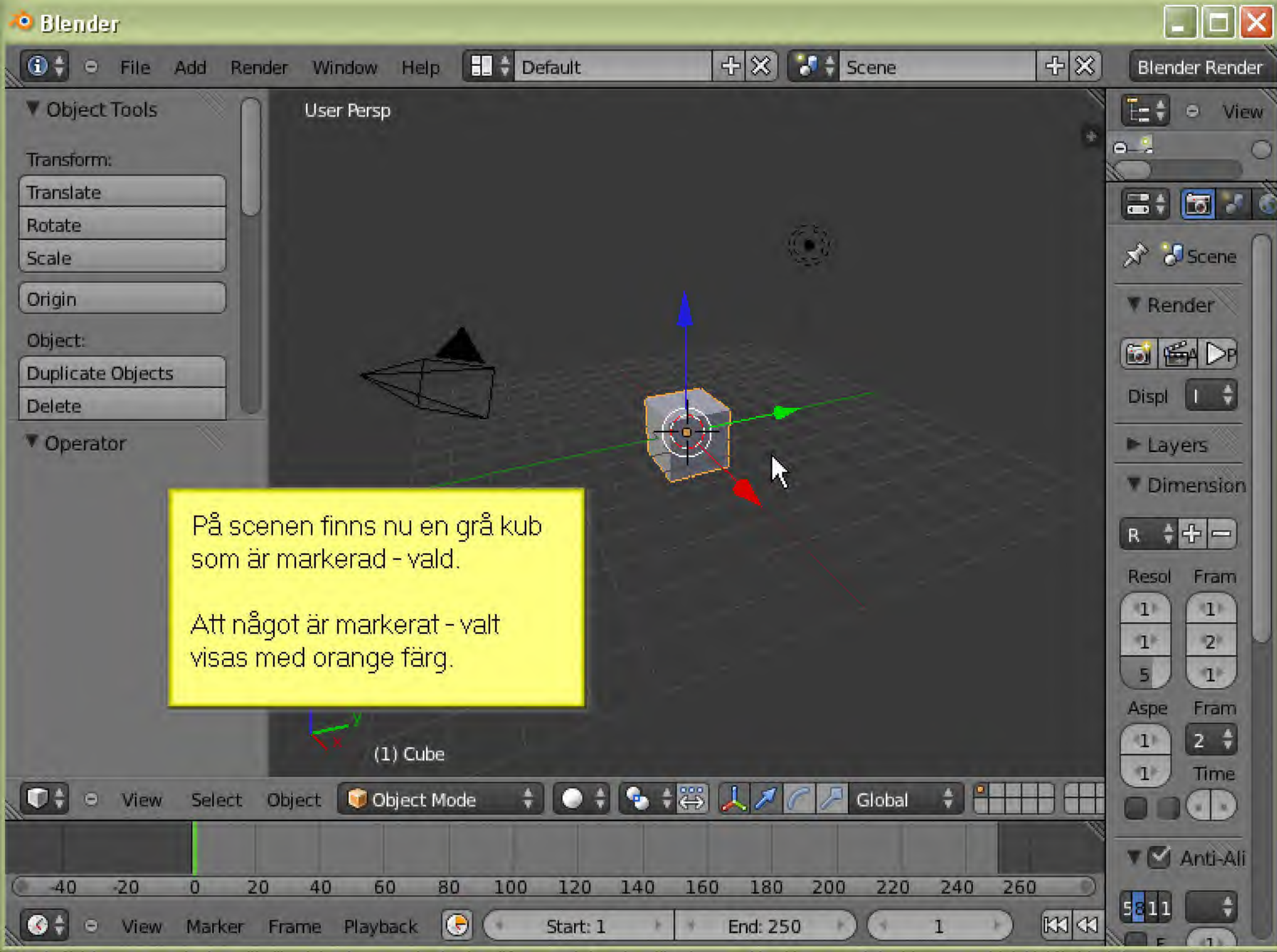
Requires Windows XP/Vista/7 64bit

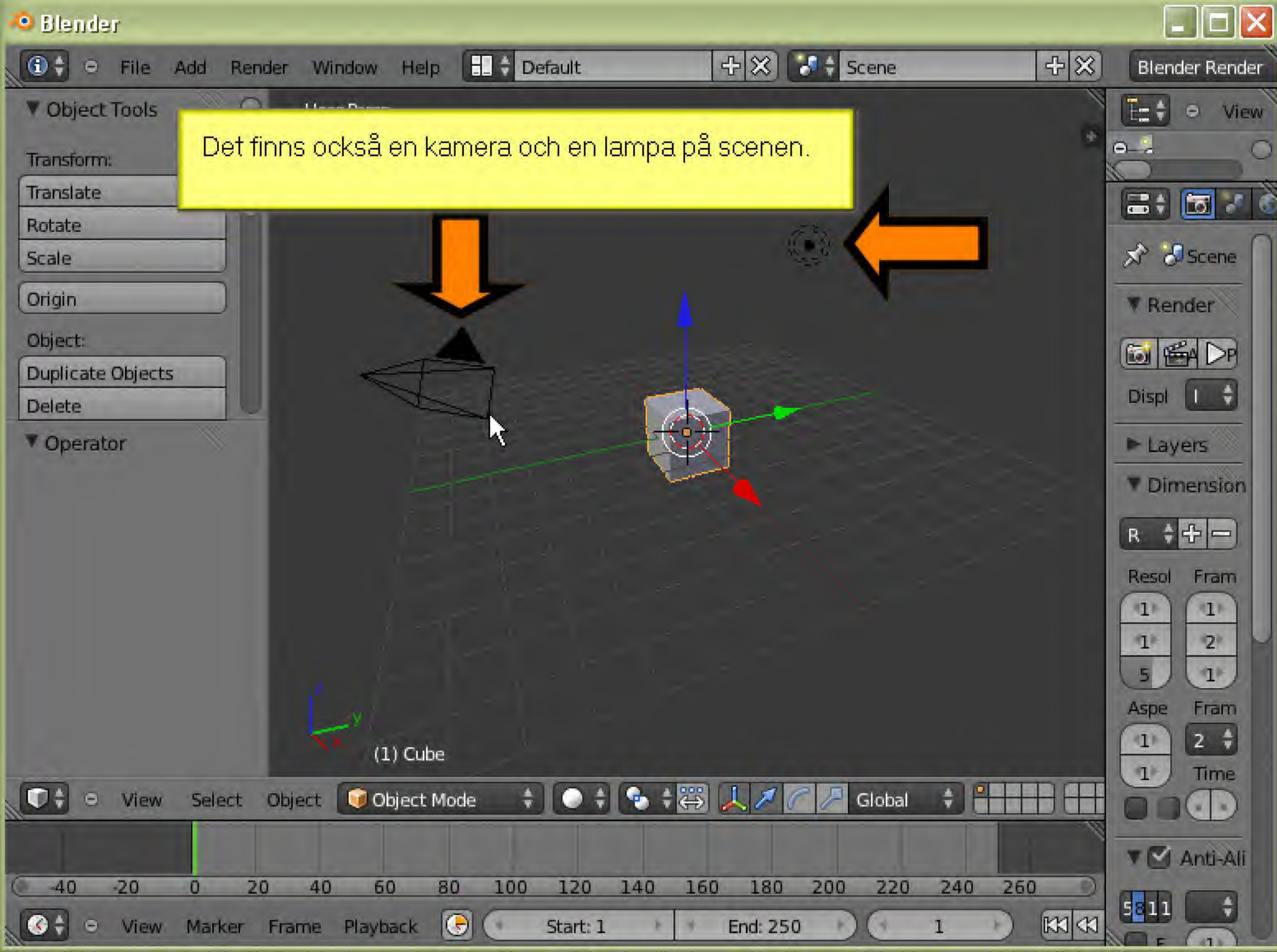


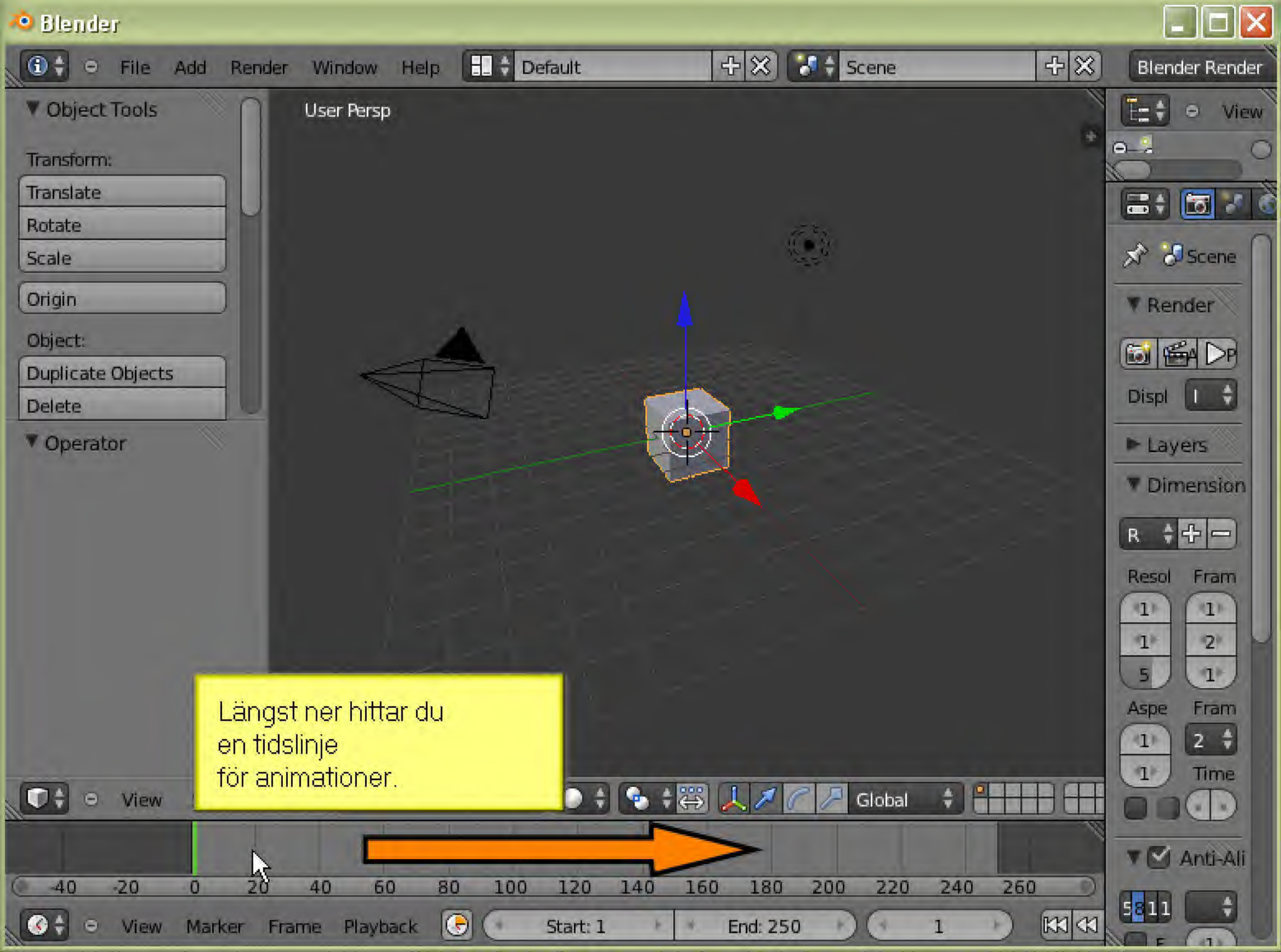
Starta Blender och du får
ett fönster med en 3D-scen.

Gå till
File > Load Factory Settings

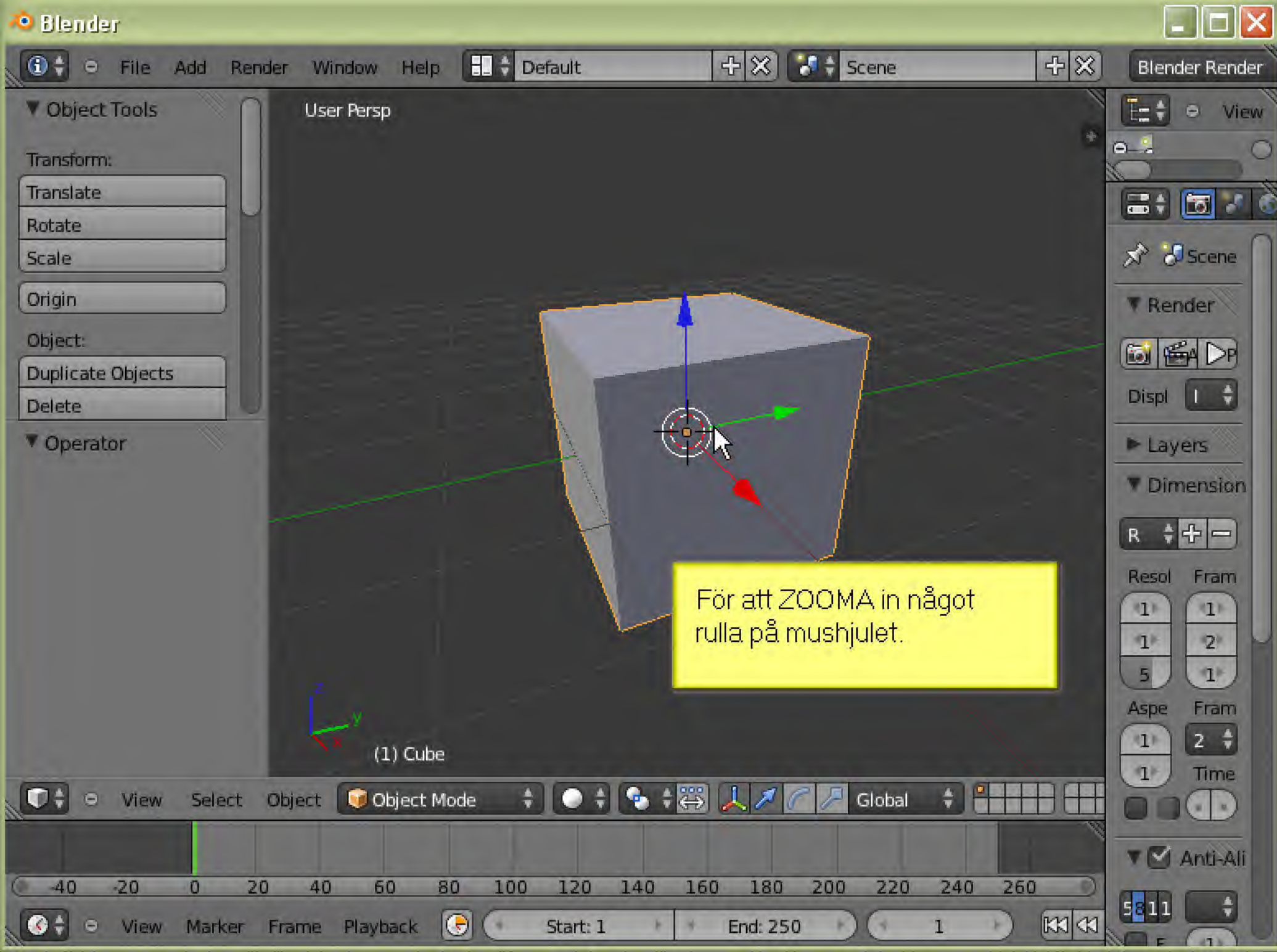
och du får en bra 3D scen
att utgå ifrån.

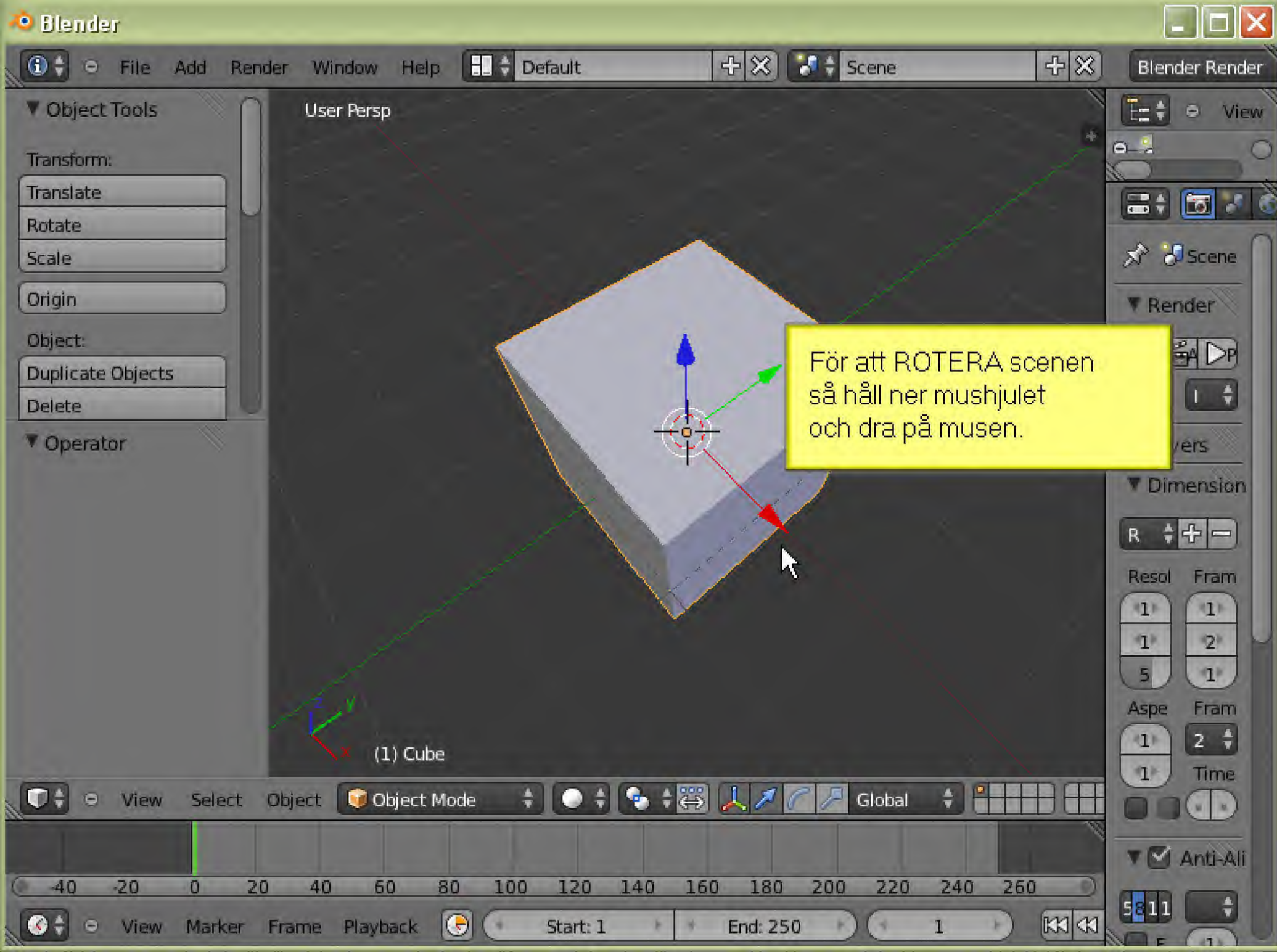


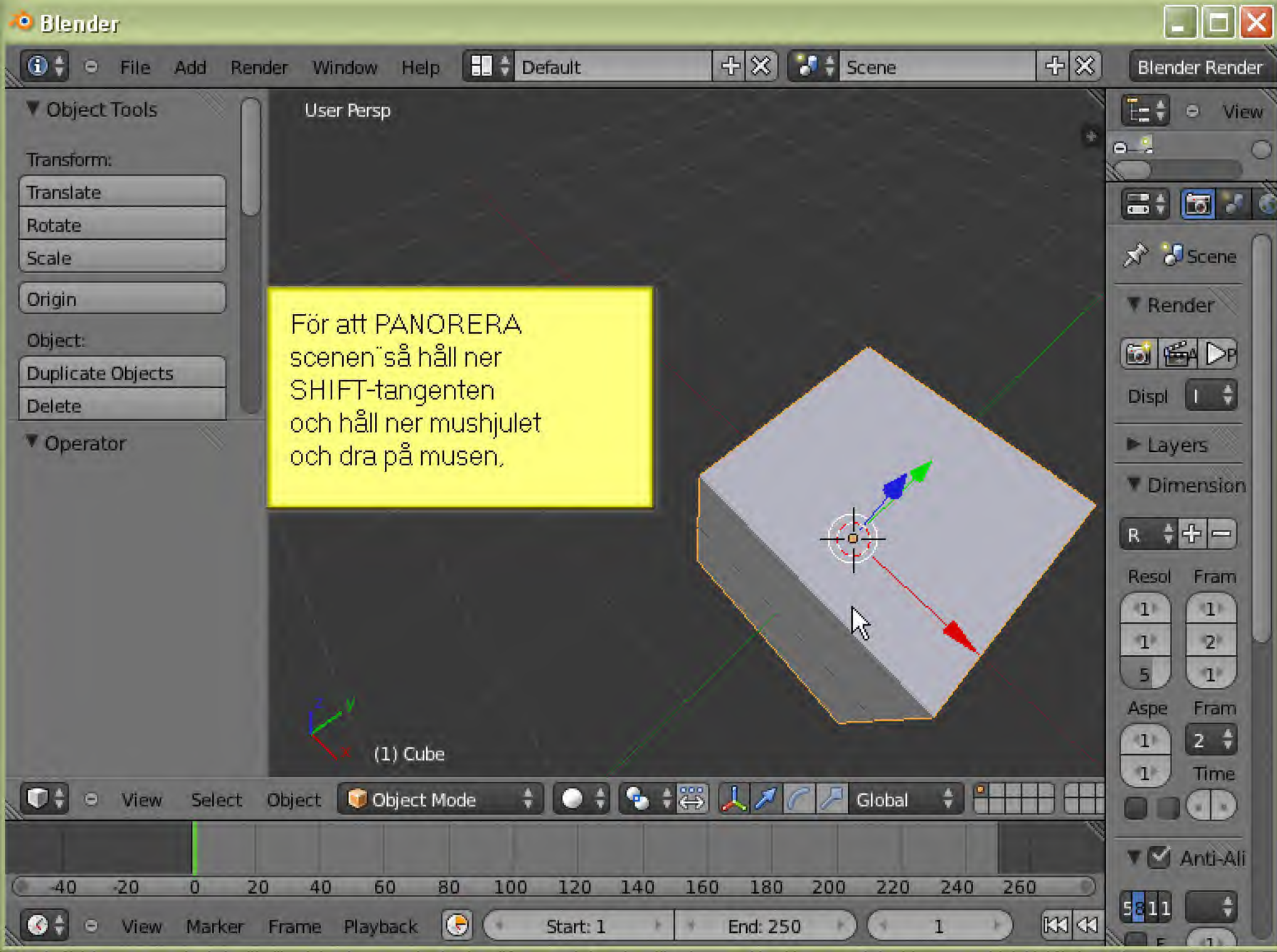


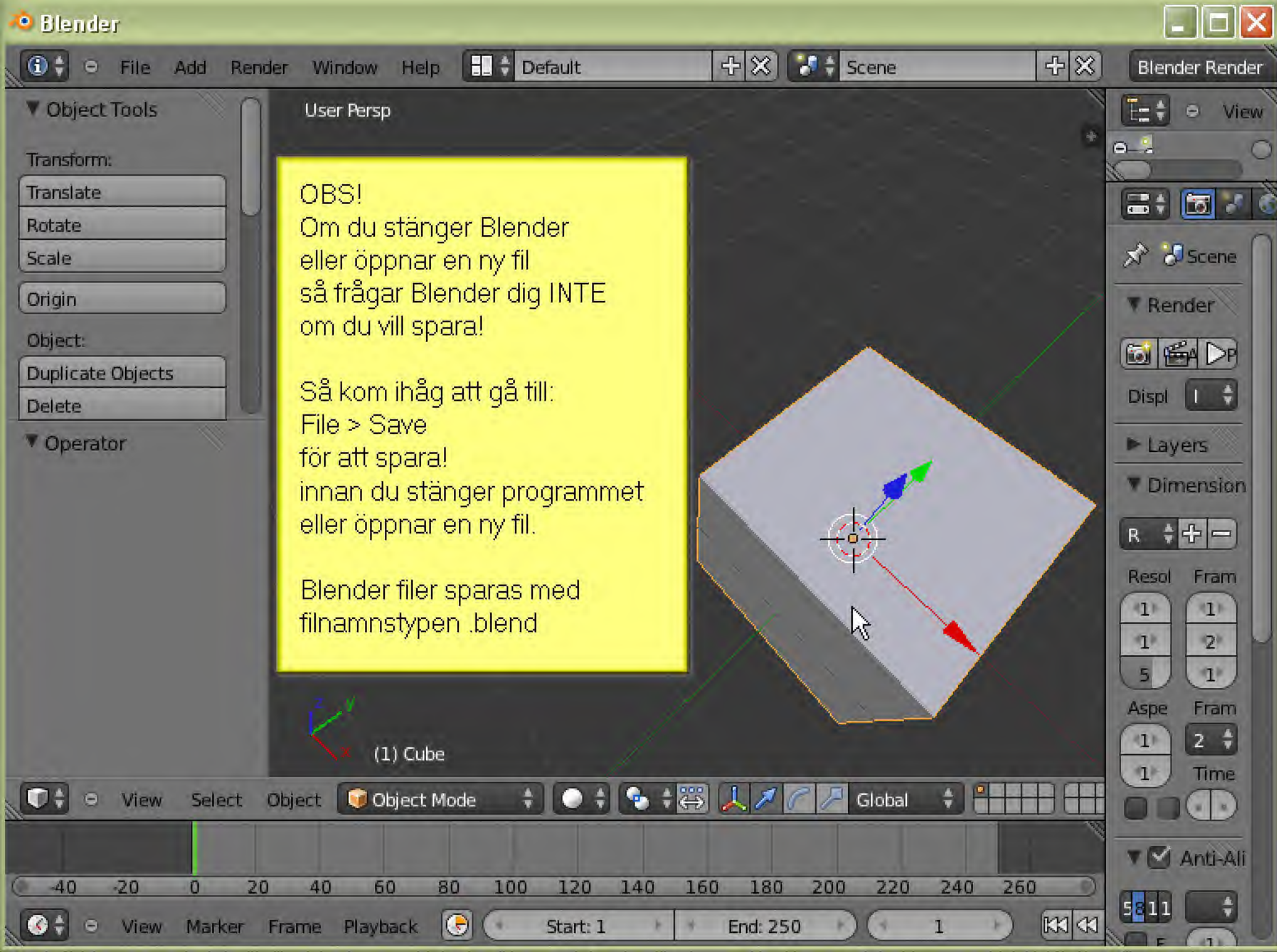


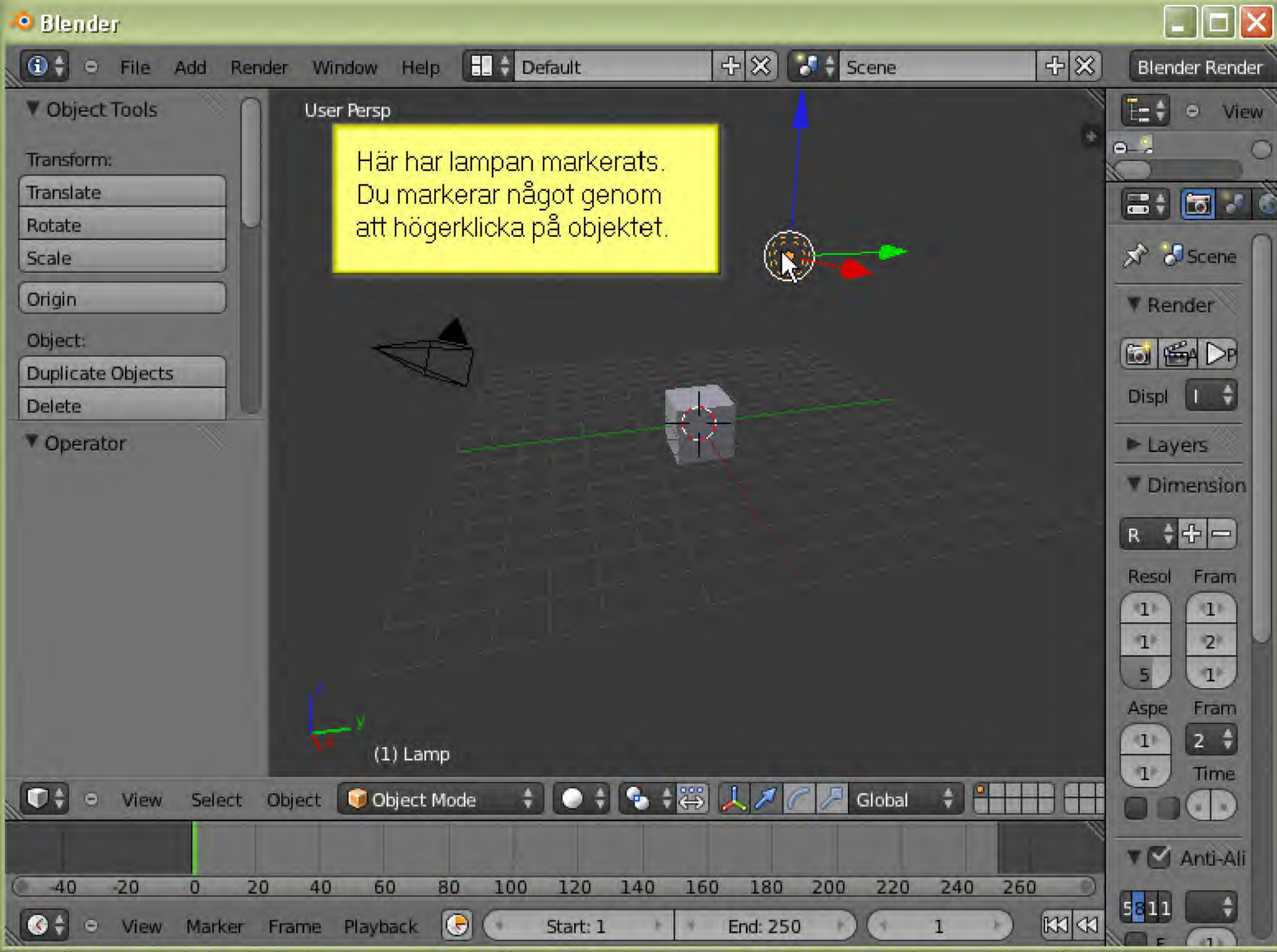
Längst ner hittar du
en tidslinje
för animationer.

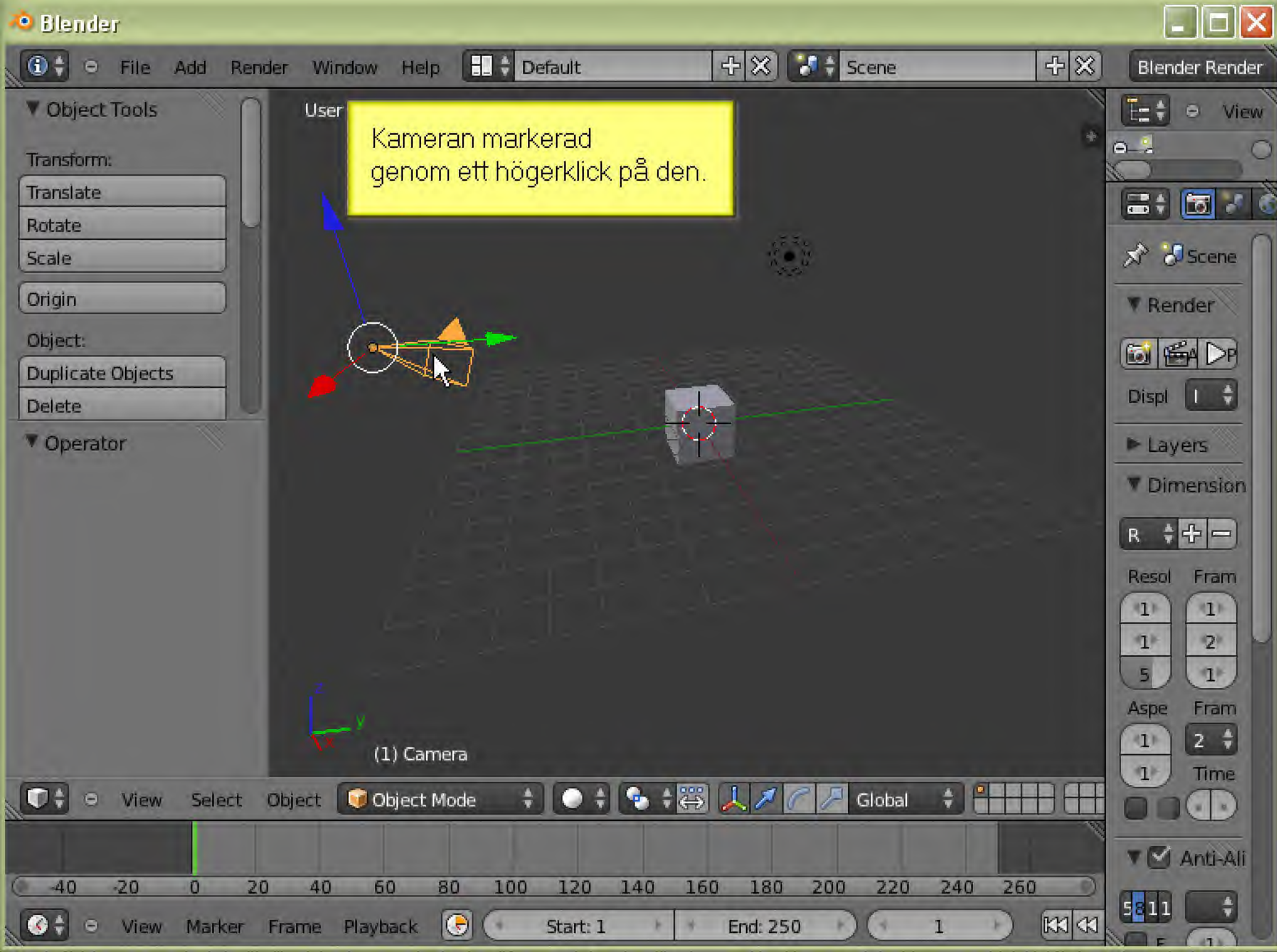


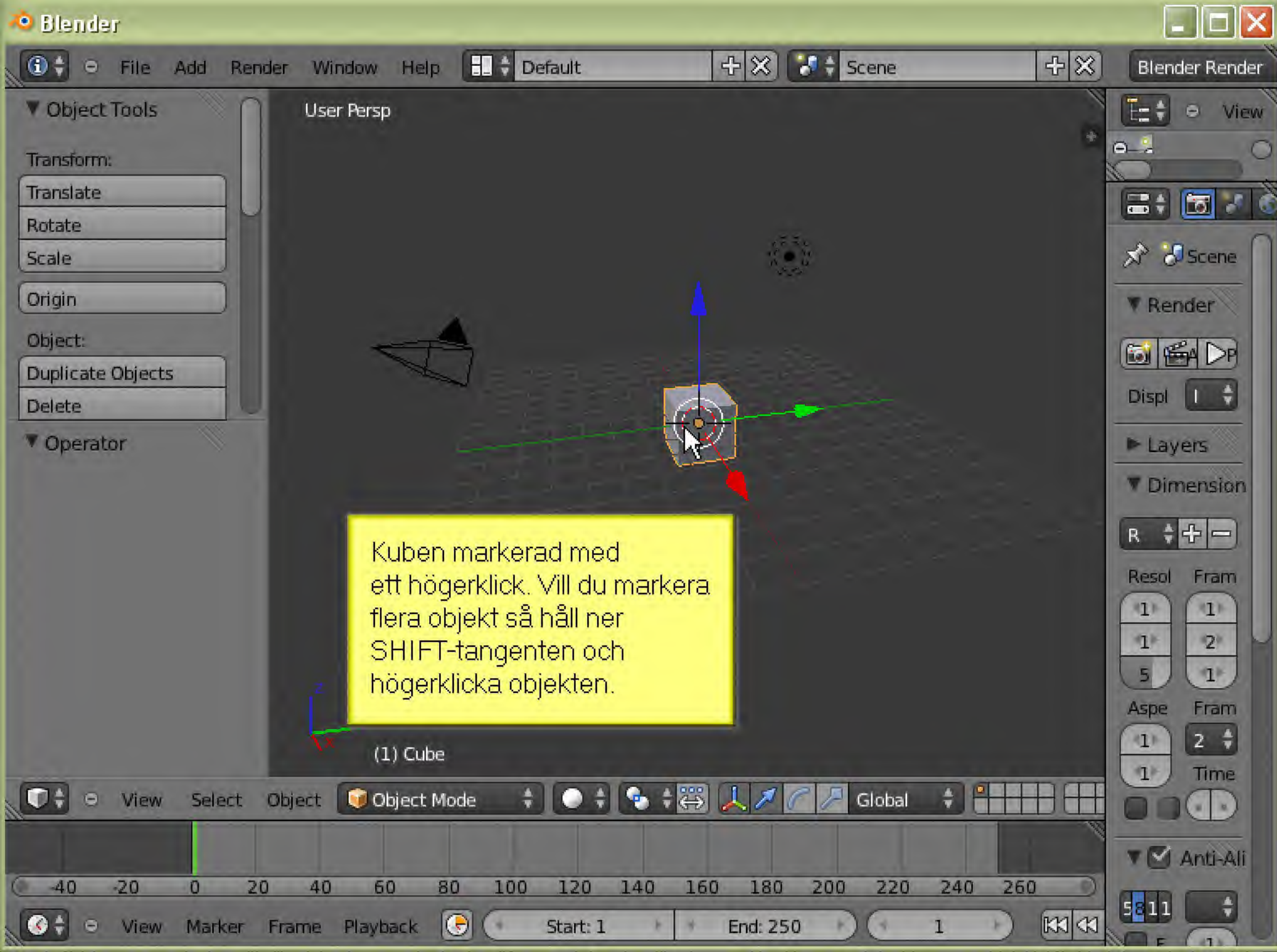


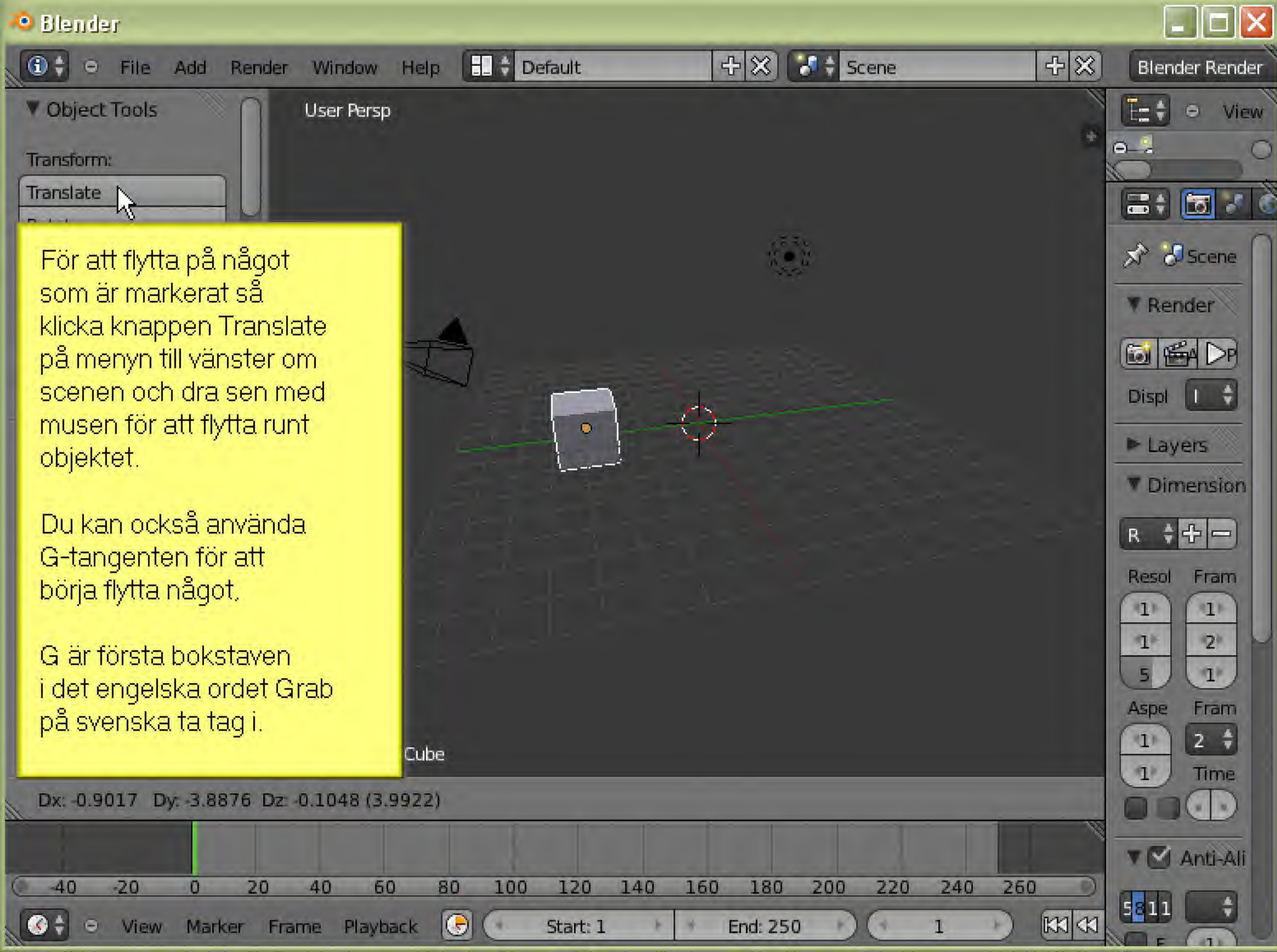


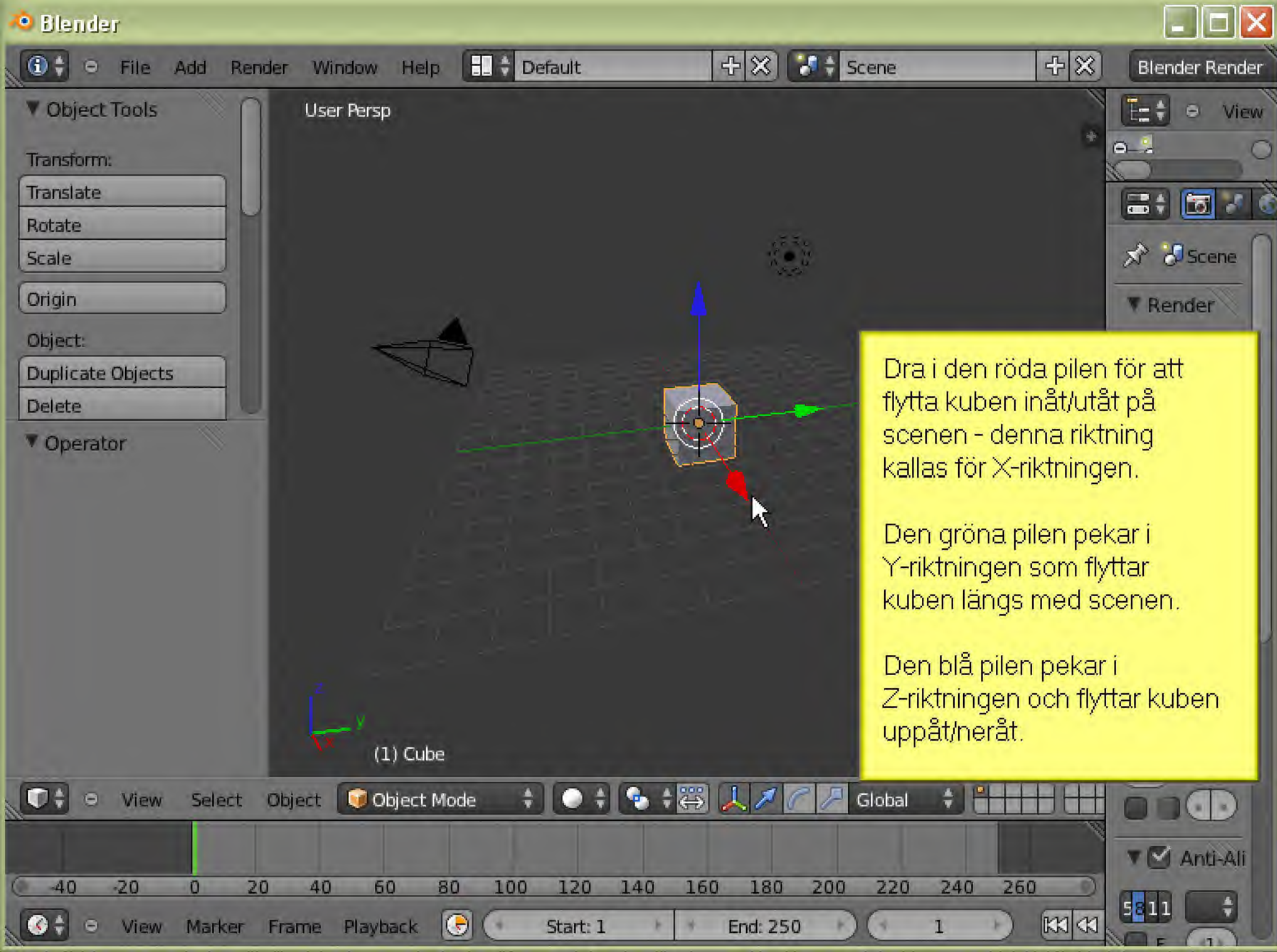


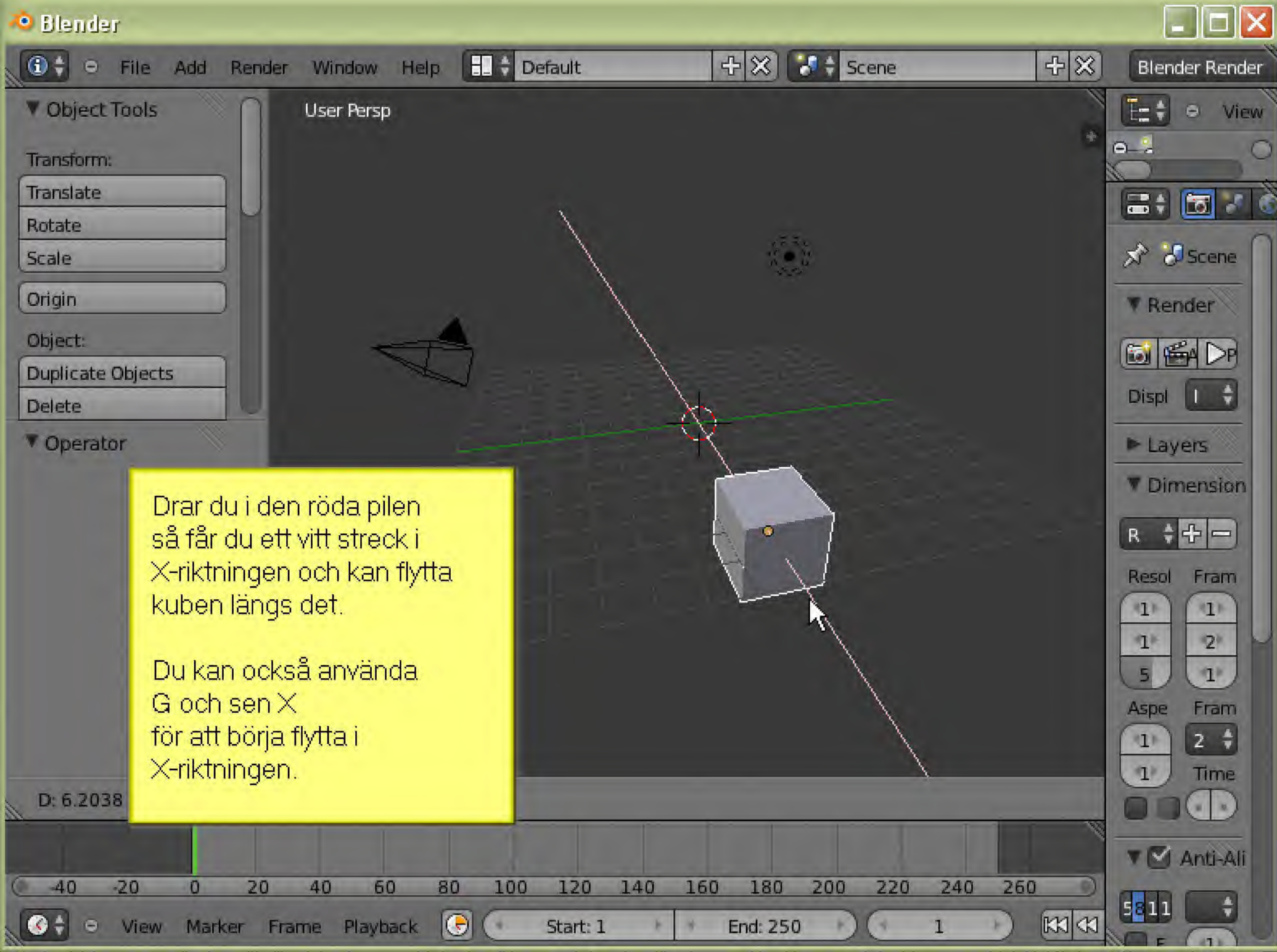


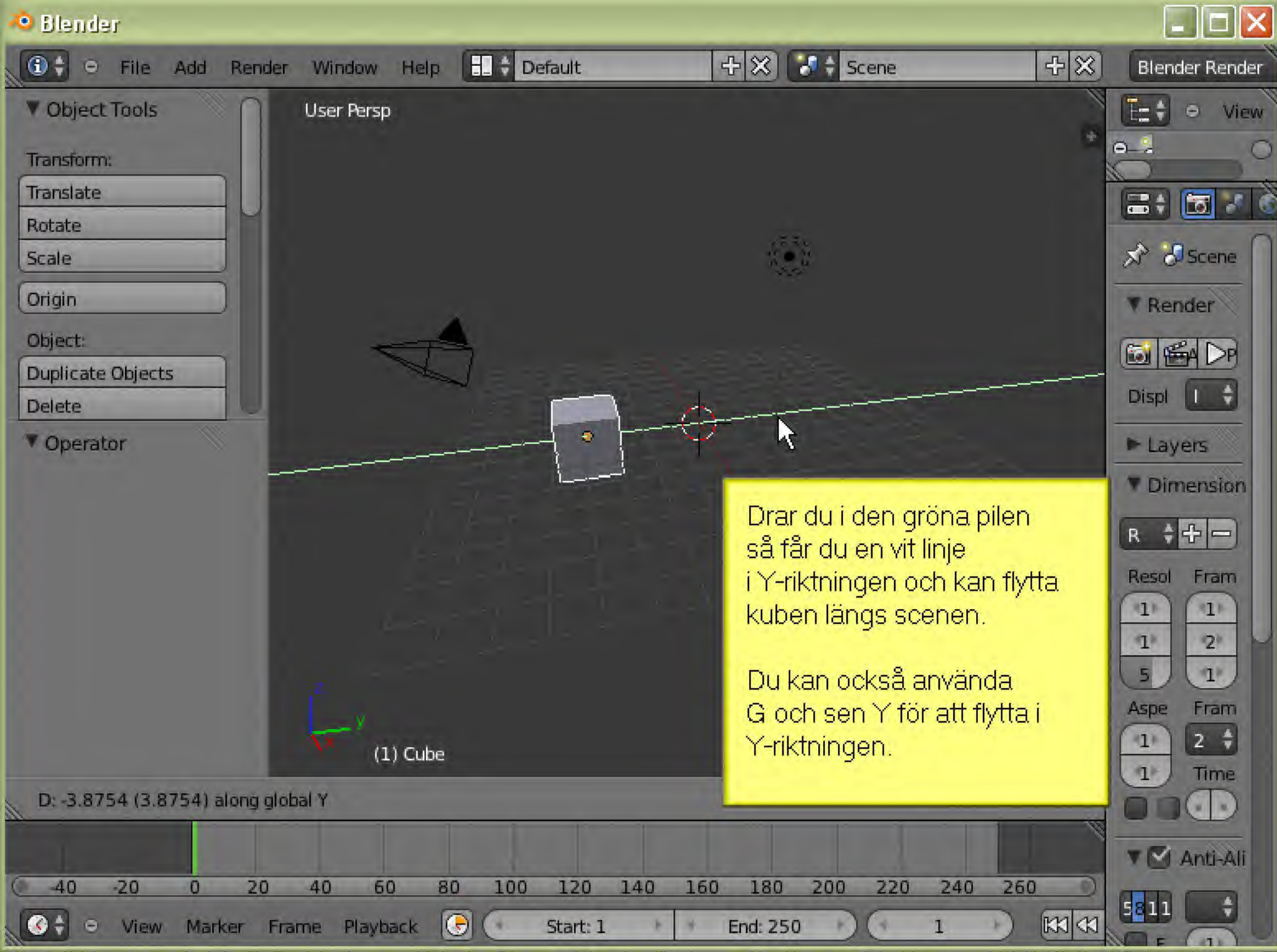












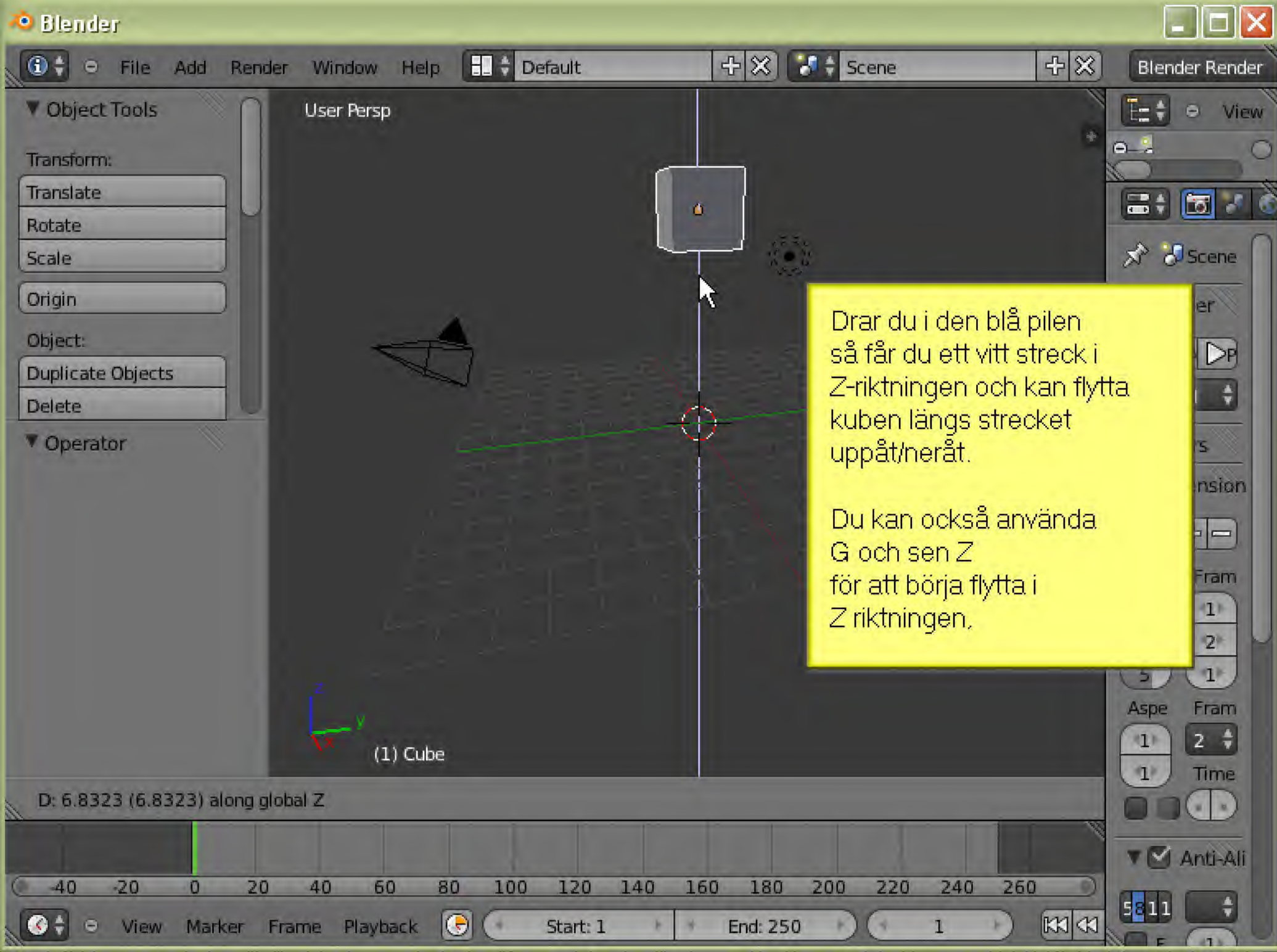
Drar du i den gröna pilen så får du en vit linje i Y-riktningen och kan flytta kuben längs scenen.

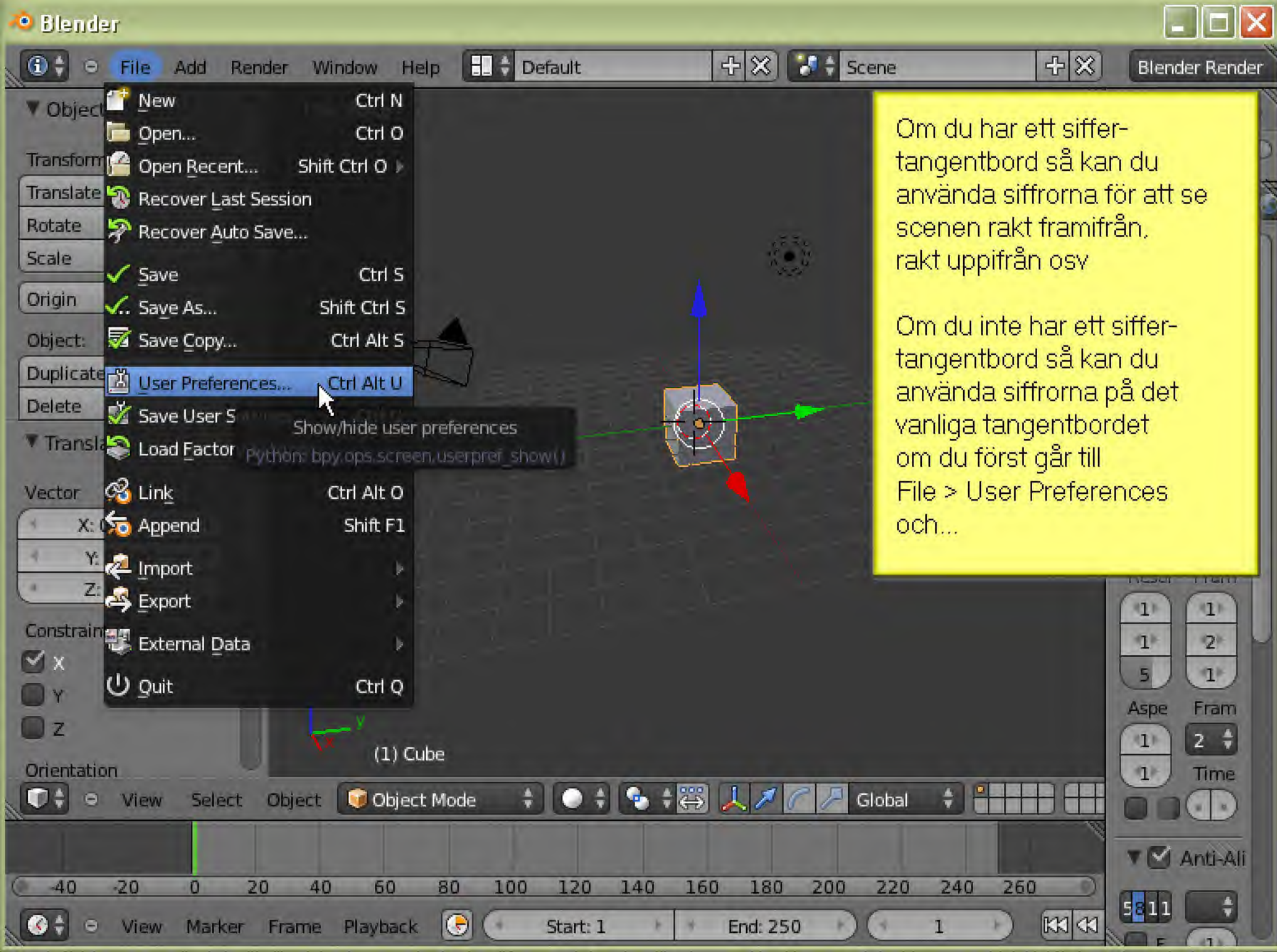
Du kan också använda G och sen Y för att flytta i Y-riktningen.

D: -3.8754 (3.8754) along global Y

-40 -20 0 20 40 60 80 100 120 140 160 180 200 220 240 260

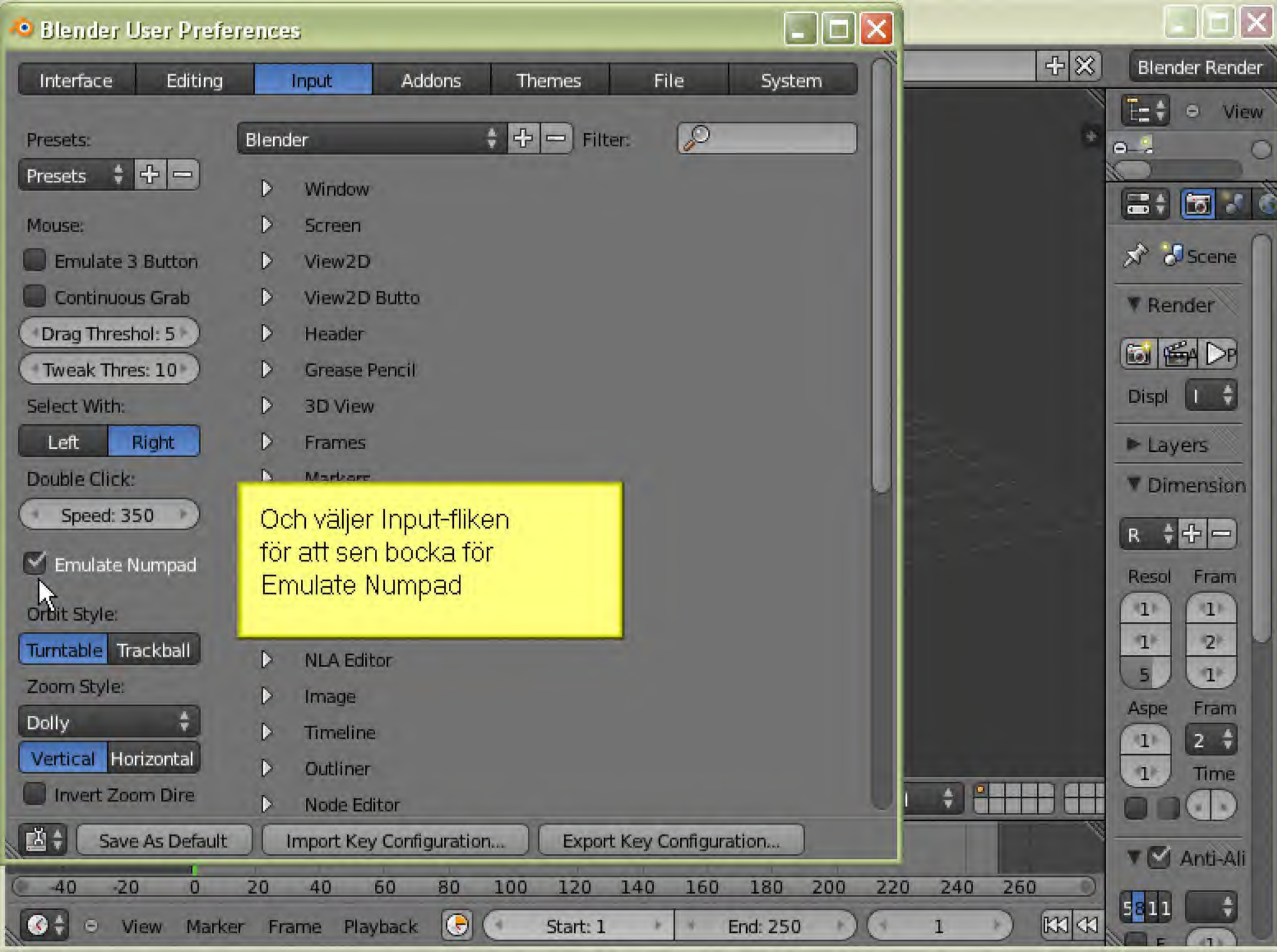
View Marker Frame Playback Start: 1 End: 250 1





Om du har ett siffer-tangentbord så kan du använda siffrorna för att se scenen rakt framifrån, rakt uppifrån osv

Om du inte har ett siffer-tangentbord så kan du använda siffrorna på det vanliga tangentbordet om du först går till File > User Preferences och...



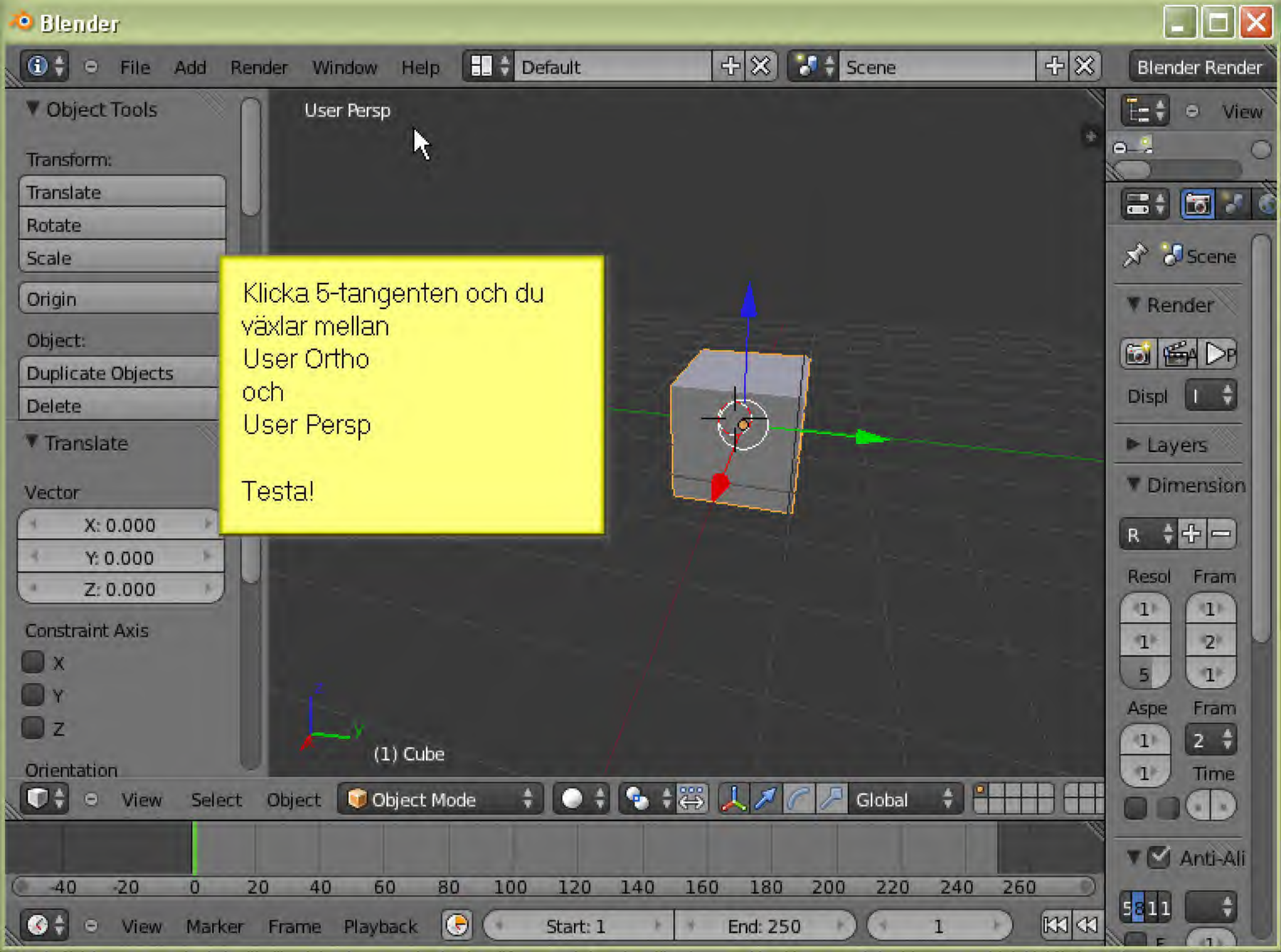
User Ortho

User Ortho är ett perspektiv som gör det lite lättare att jobba med objekten på scenen.

(1) Cube

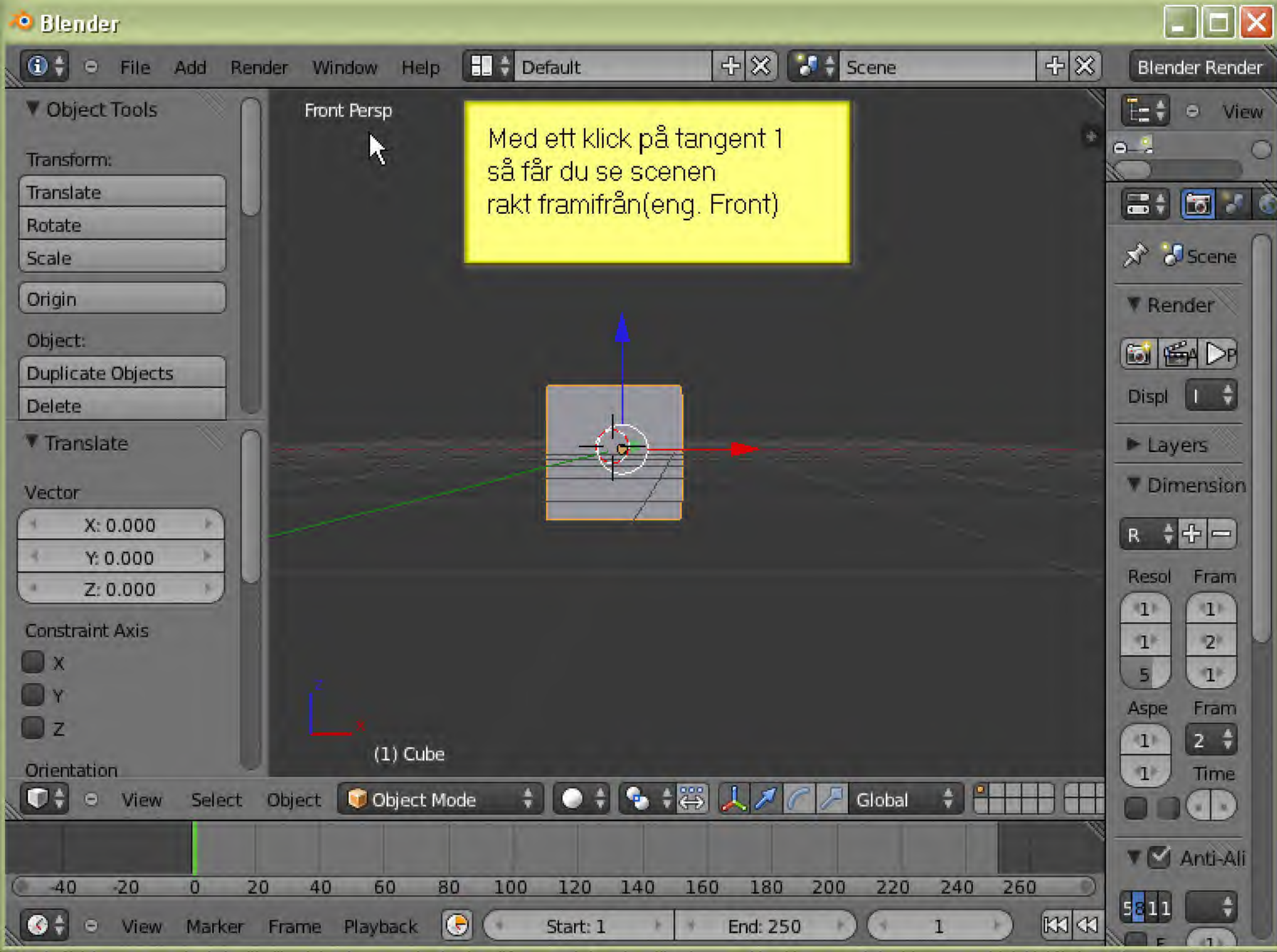
5817

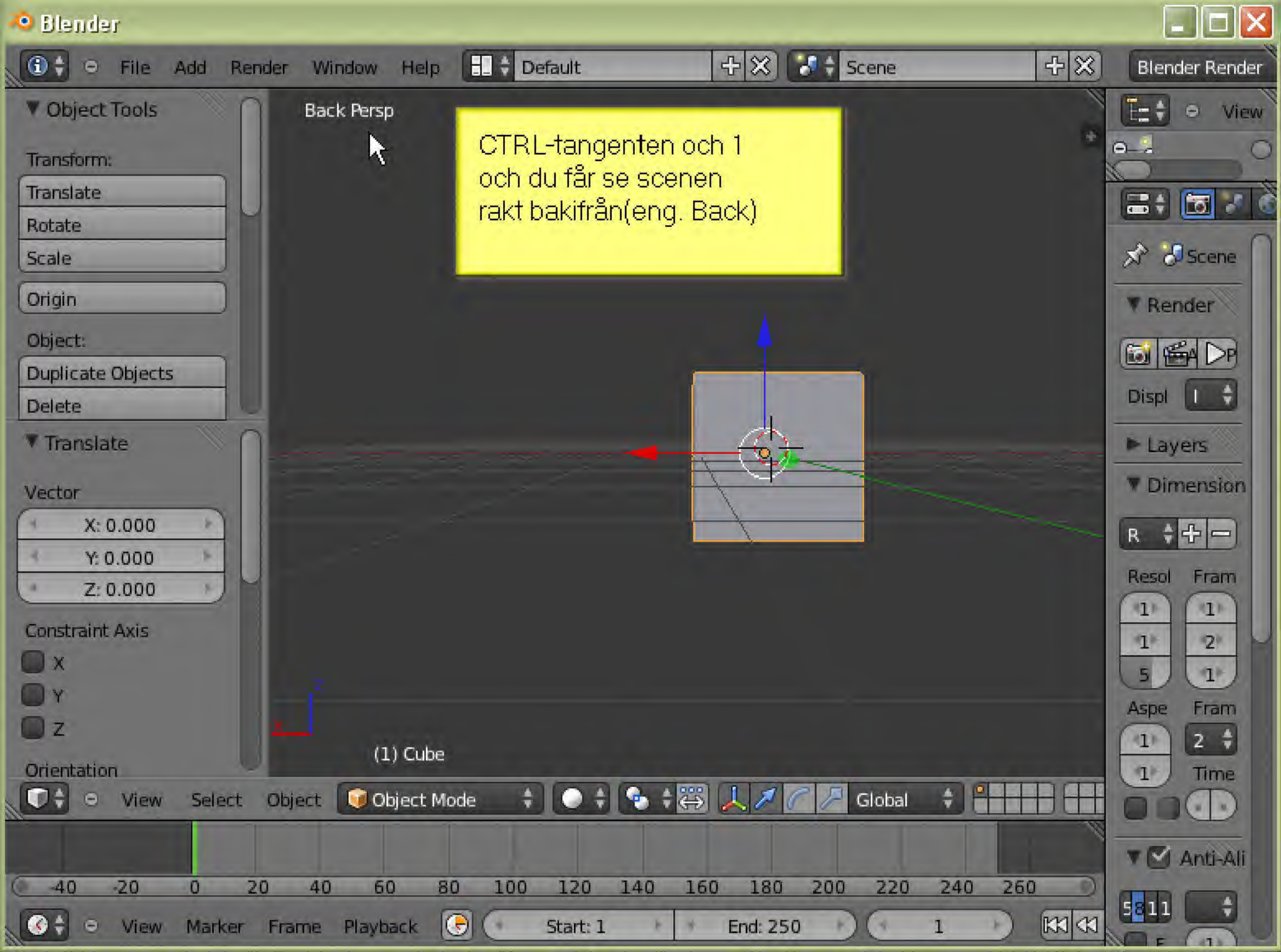


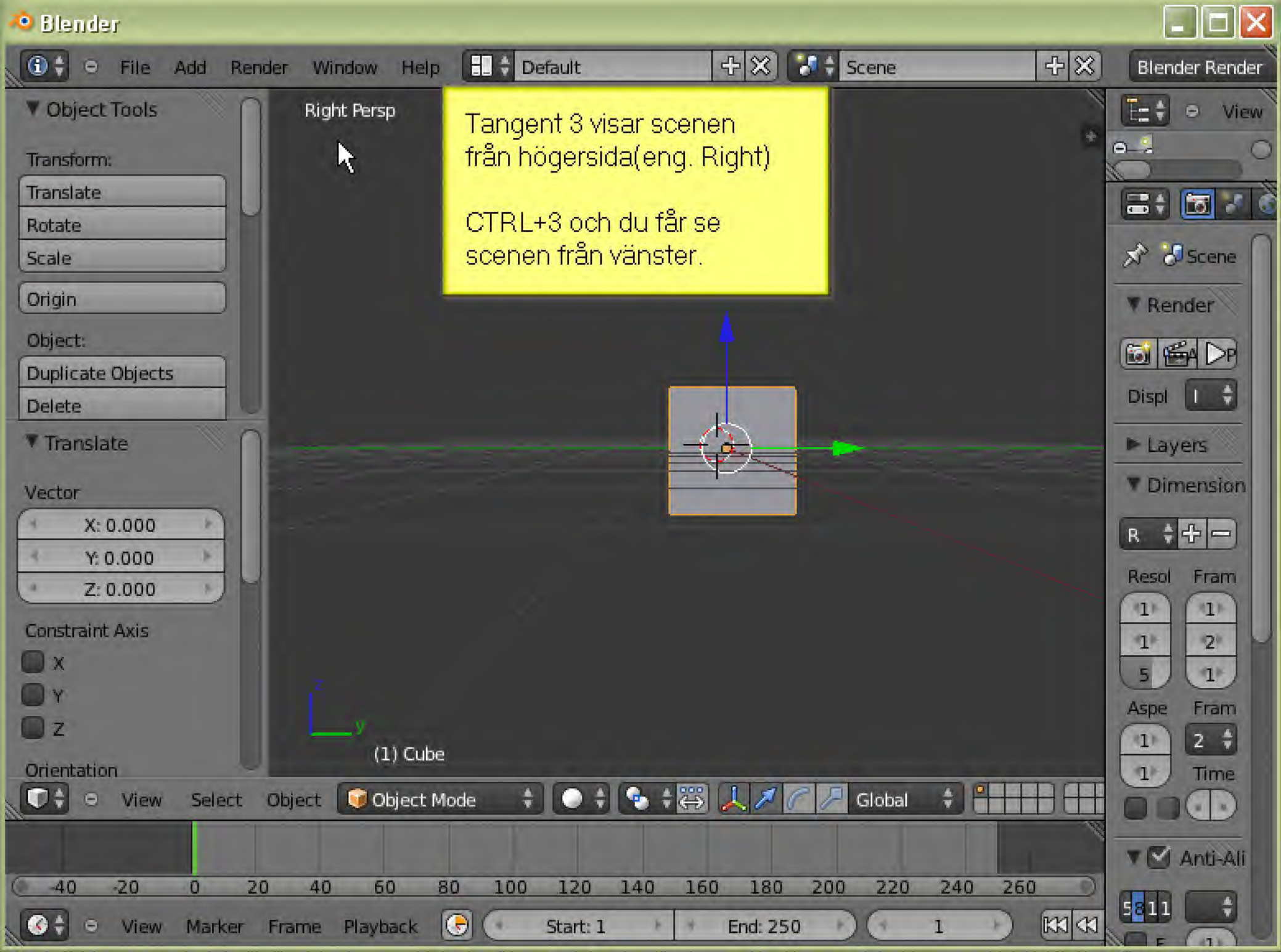


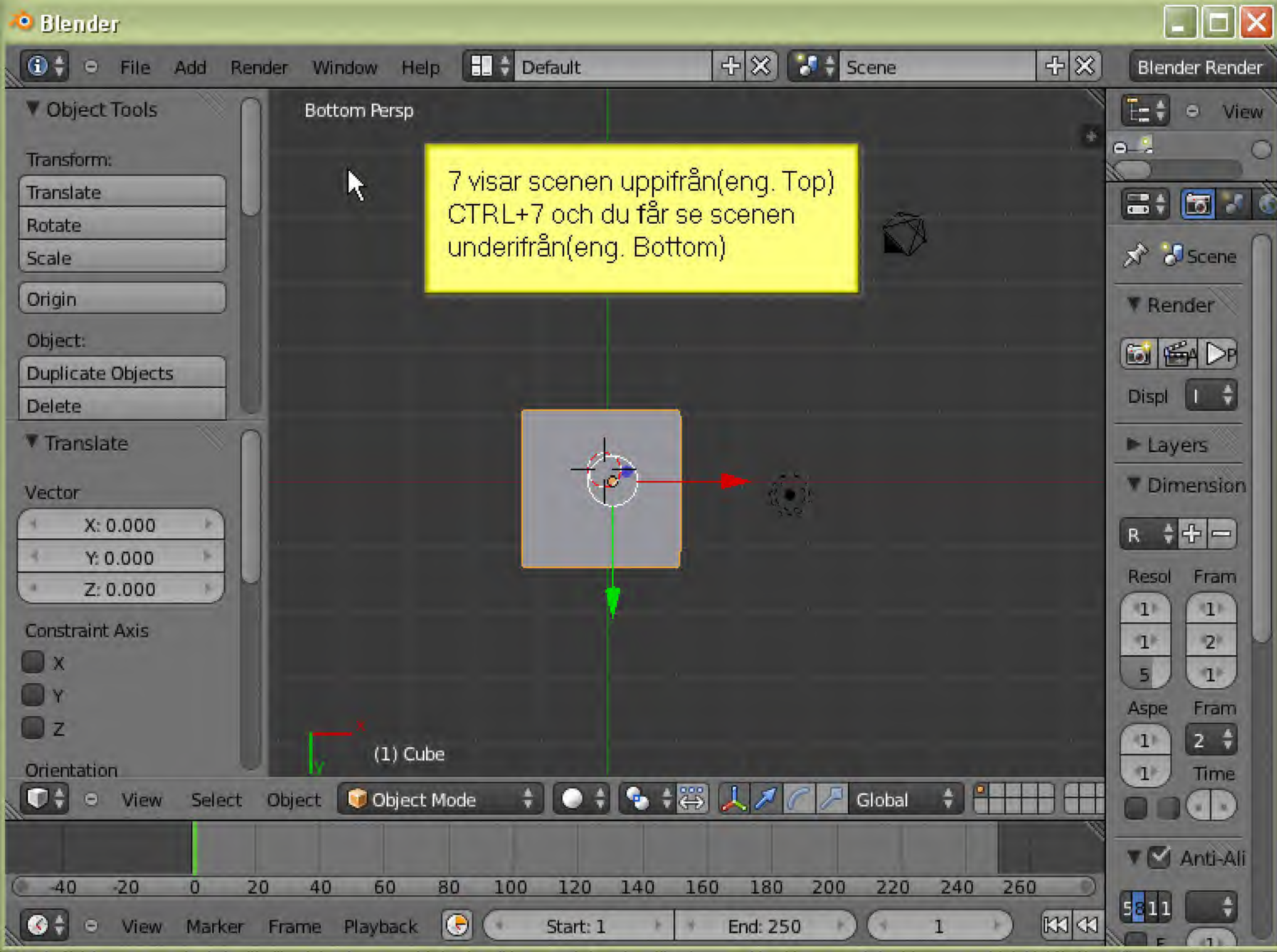
Klicka 5-tangenten och du
växlar mellan
User Ortho
och
User Persp

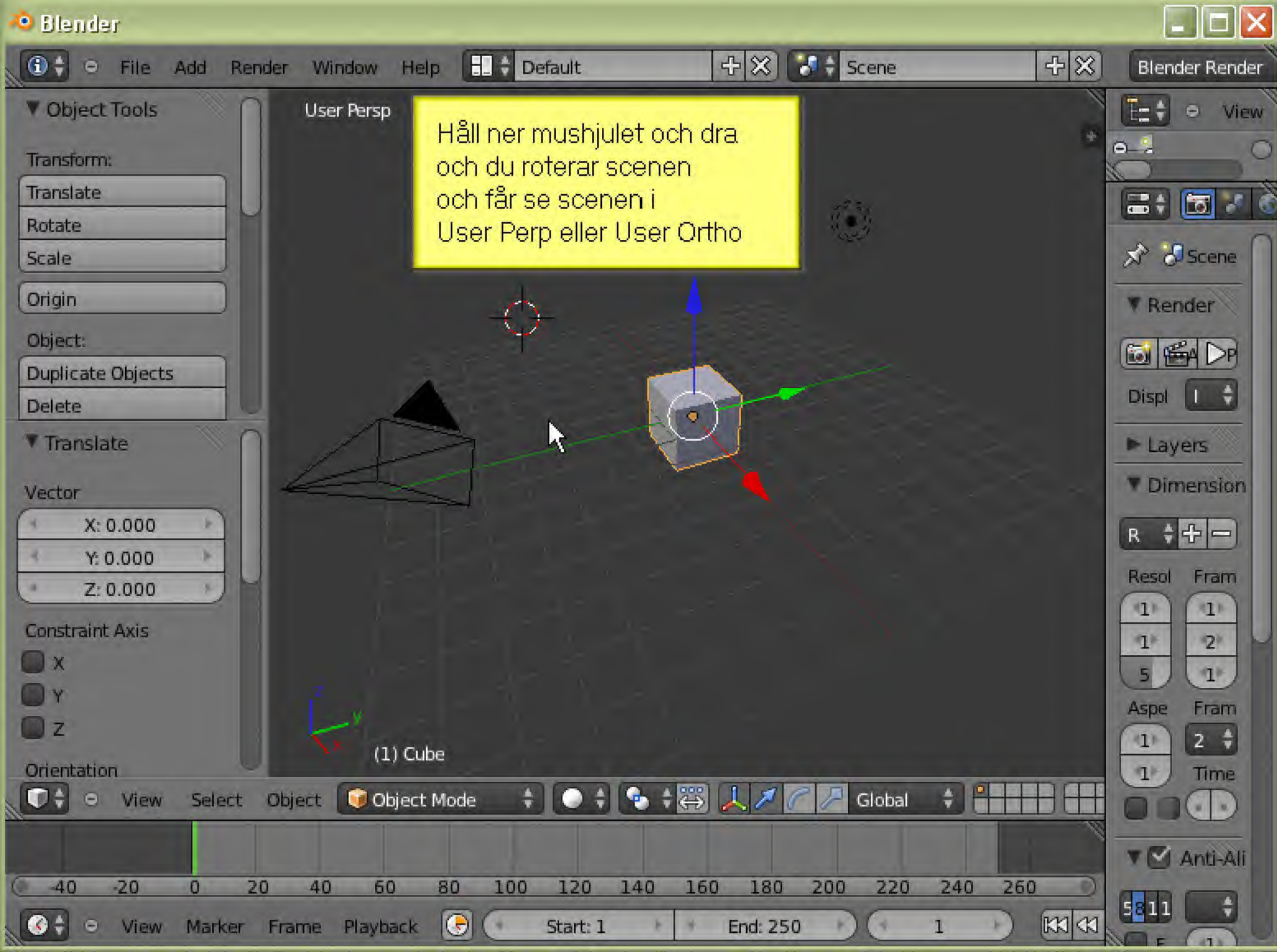
Testa!

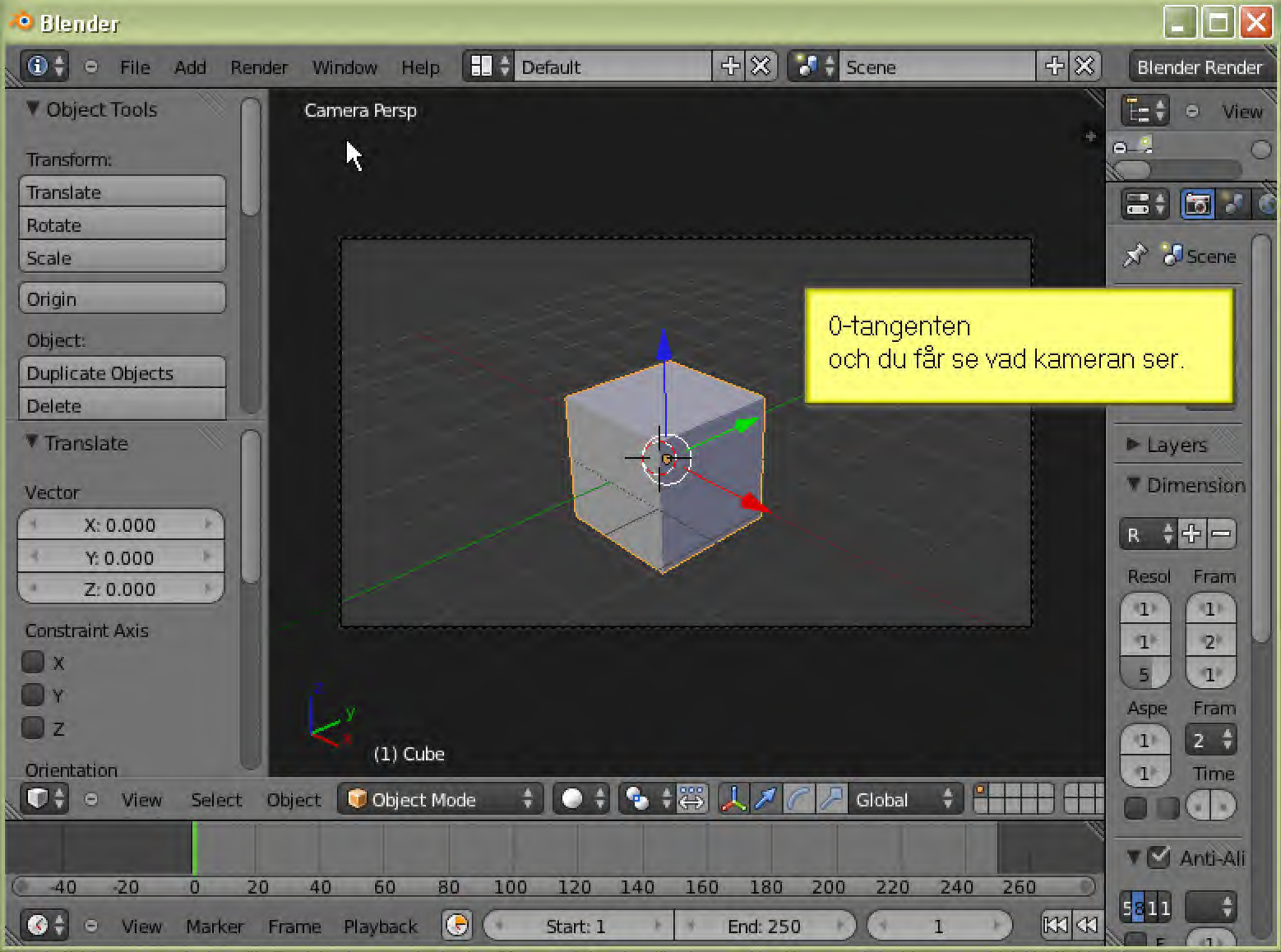


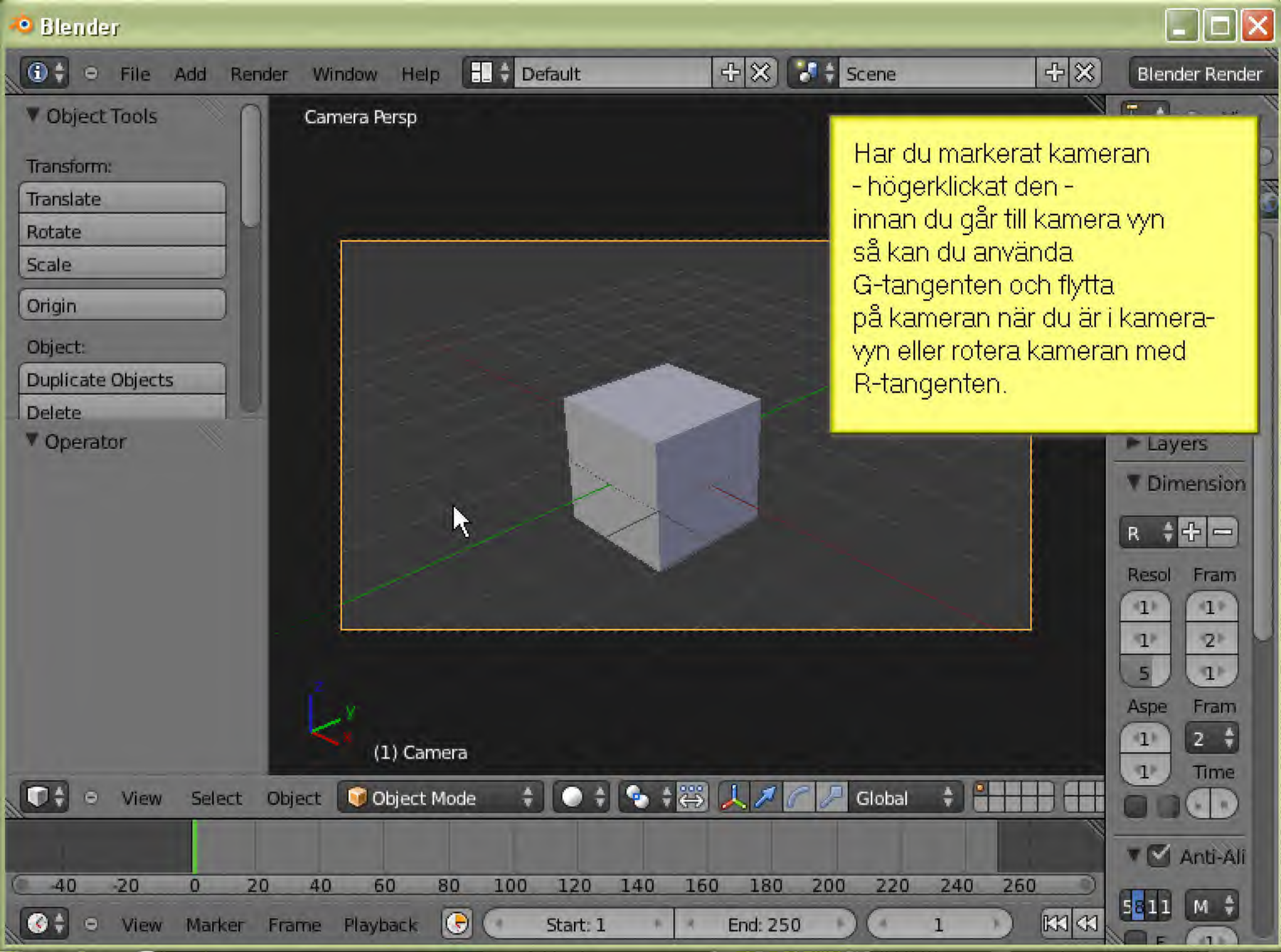




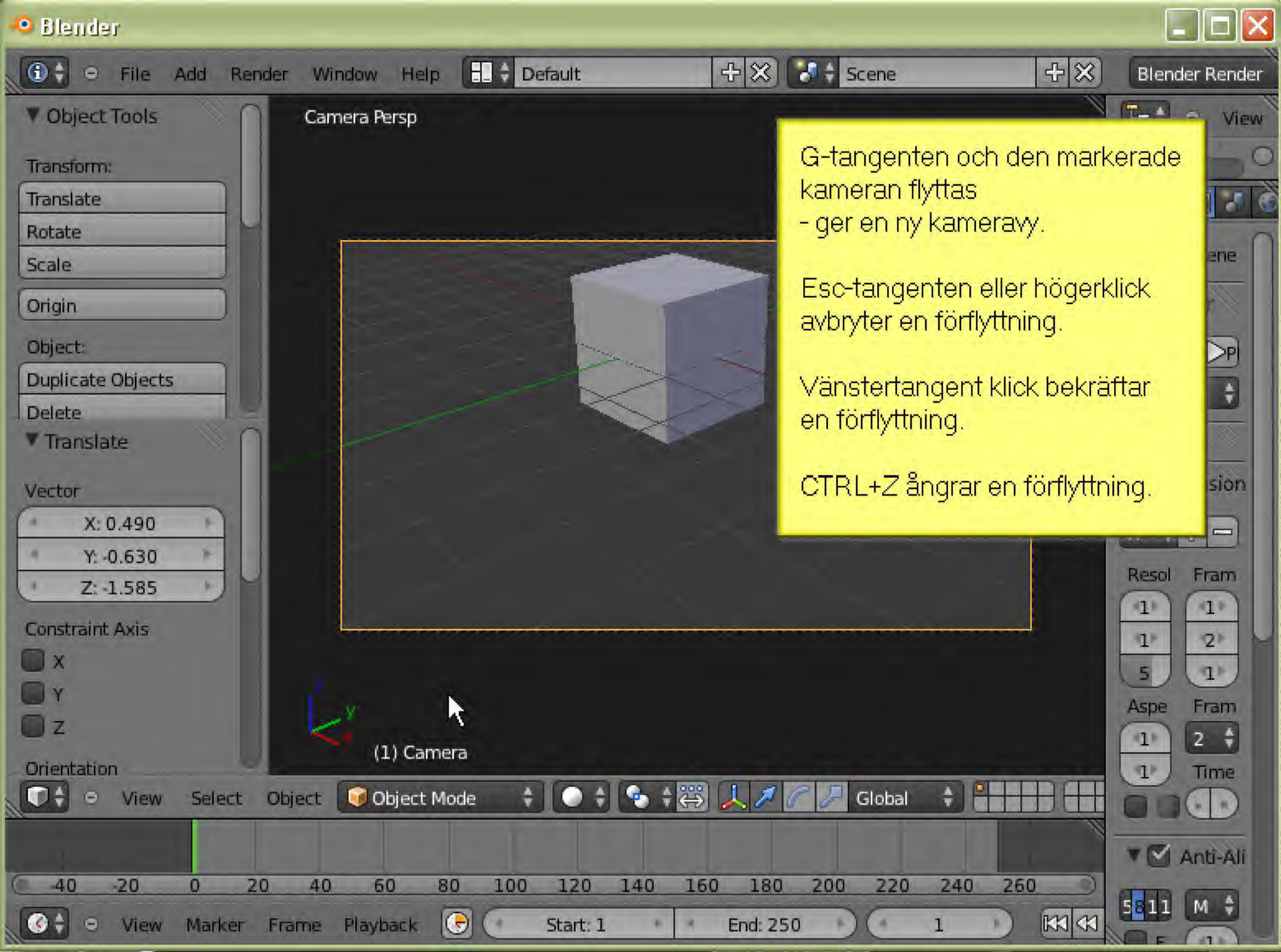








Har du markerat kameran
- högerklickat den -
innan du går till kamera vyn
så kan du använda
G-tangenten och flytta
på kameran när du är i kamera-
vyn eller rotera kameran med
R-tangenten.



Object Tools

Transform:

Translate

Rotate

Scale

Origin

Object:

Duplicate Objects

Delete

Translate

Vector

X: 0.490

Y: -0.630

Z: -1.585

Constraint Axis

X

Y

Z

Orientation

View Select Object Object Mode

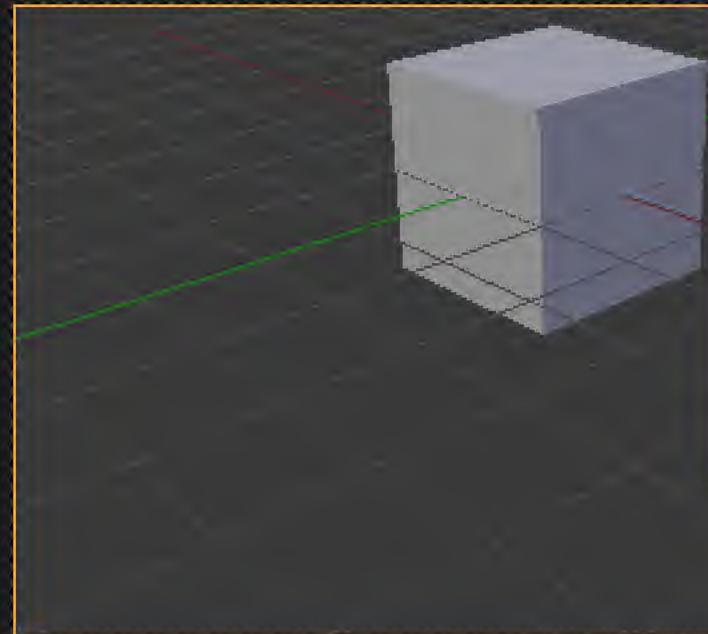
Global

Anti-Ali

5811 M

Start: 1 End: 250 1

Camera Persp



(1) Camera

G-tangenten och den markerade kameran flyttas
- ger en ny kameravy.

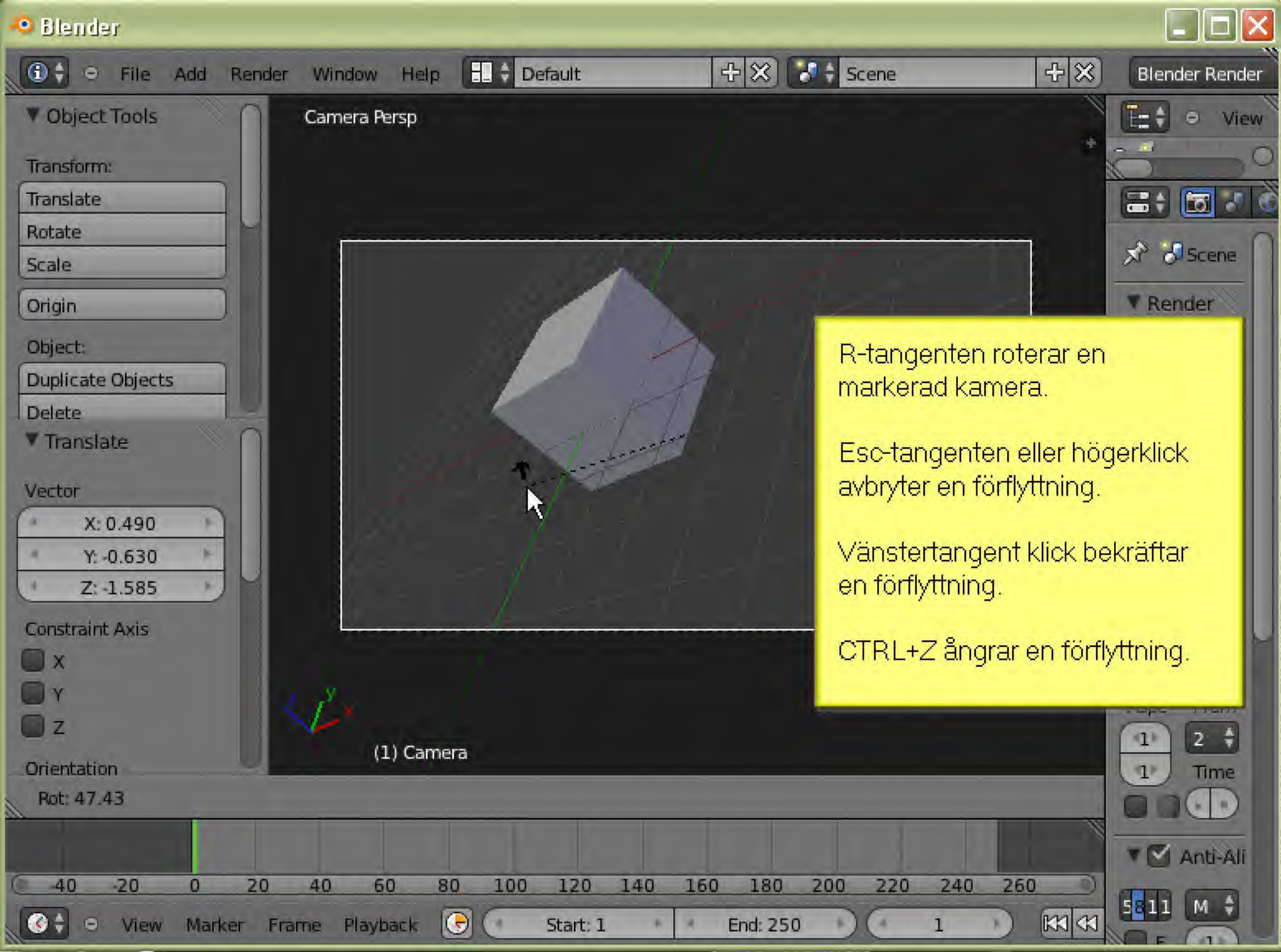
Esc-tangenten eller högerklick
avbryter en förflyttning.

Vänstertangent klick bekräftar
en förflyttning.

CTRL+Z ångrar en förflyttning.

Resol Fram
1 1
1 2
5 1
Aspe Fram
1 2
1 Time

5811 M

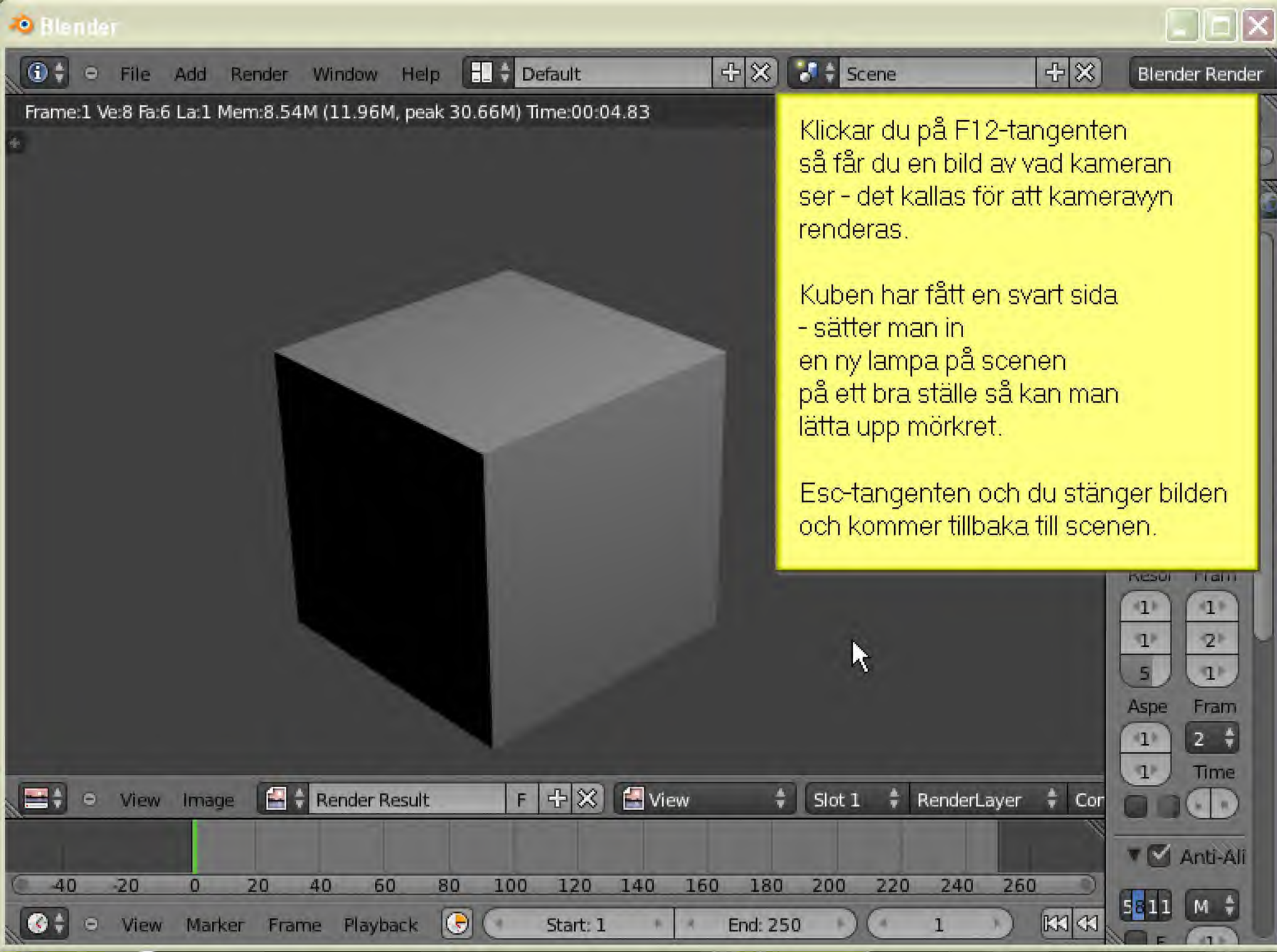


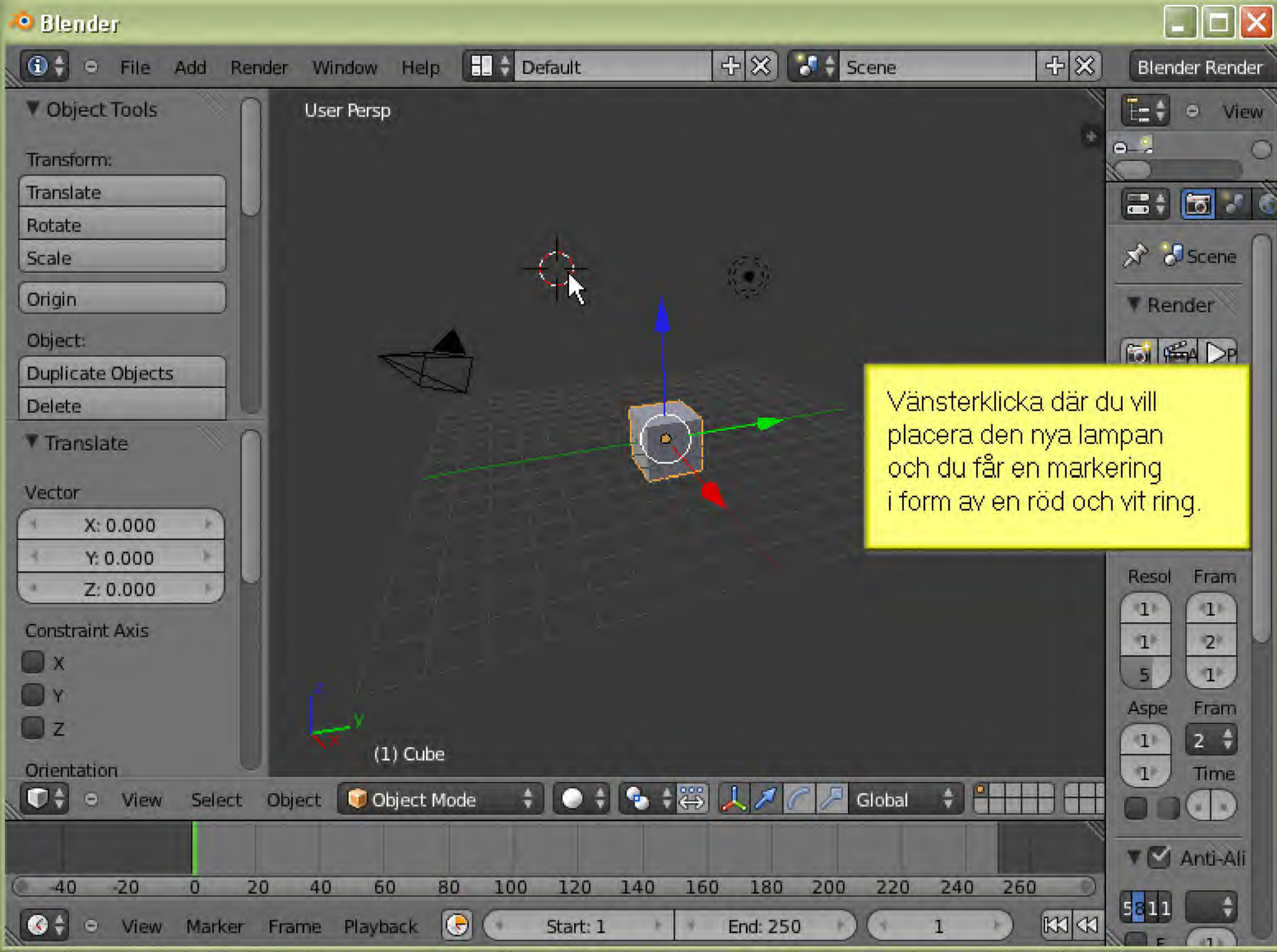
R-tangenten roterar en markerad kamera.

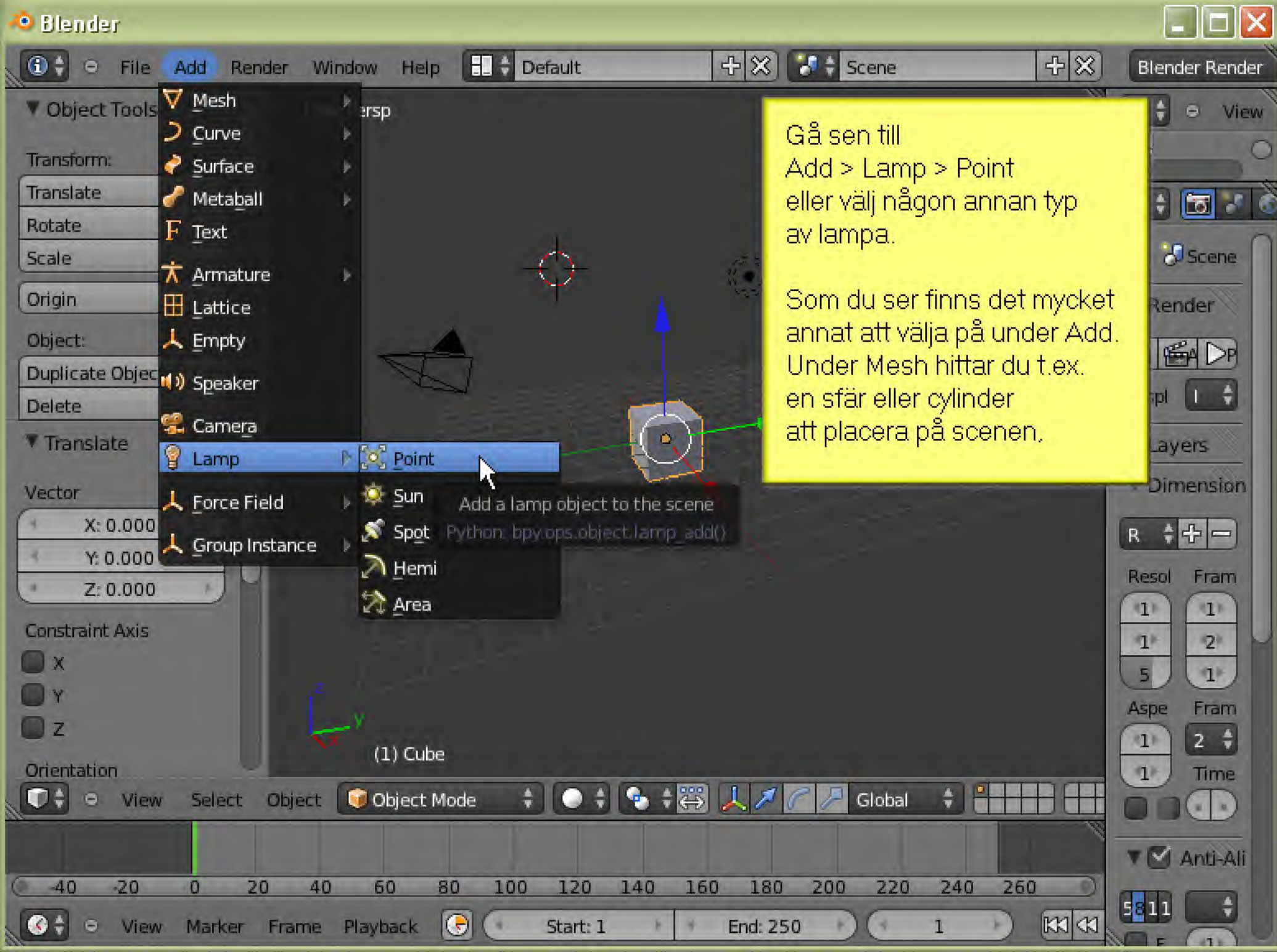
Esc-tangenten eller högerklick avbryter en förflyttning.

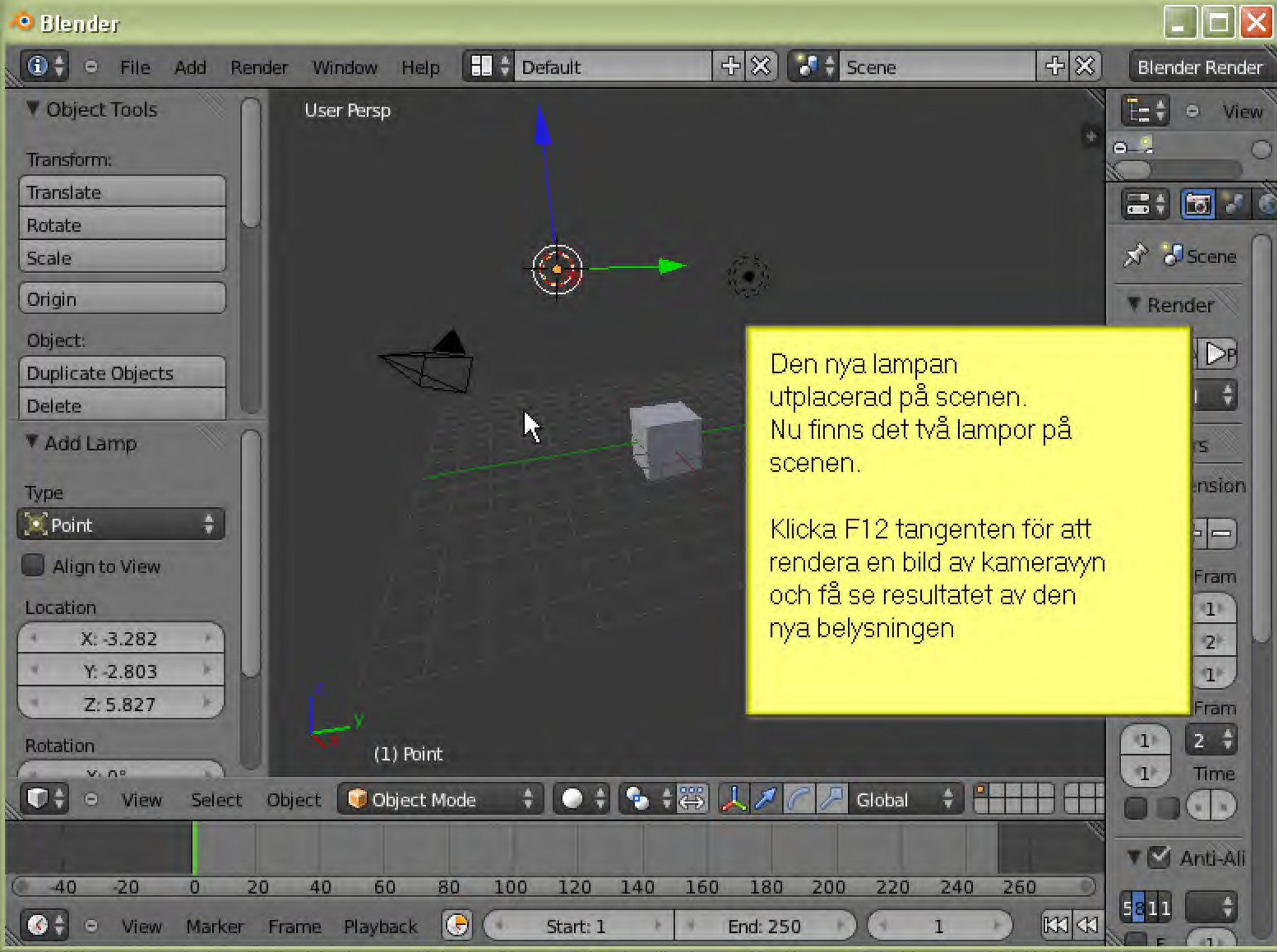
Vänstertangent klick bekräftar en förflyttning.

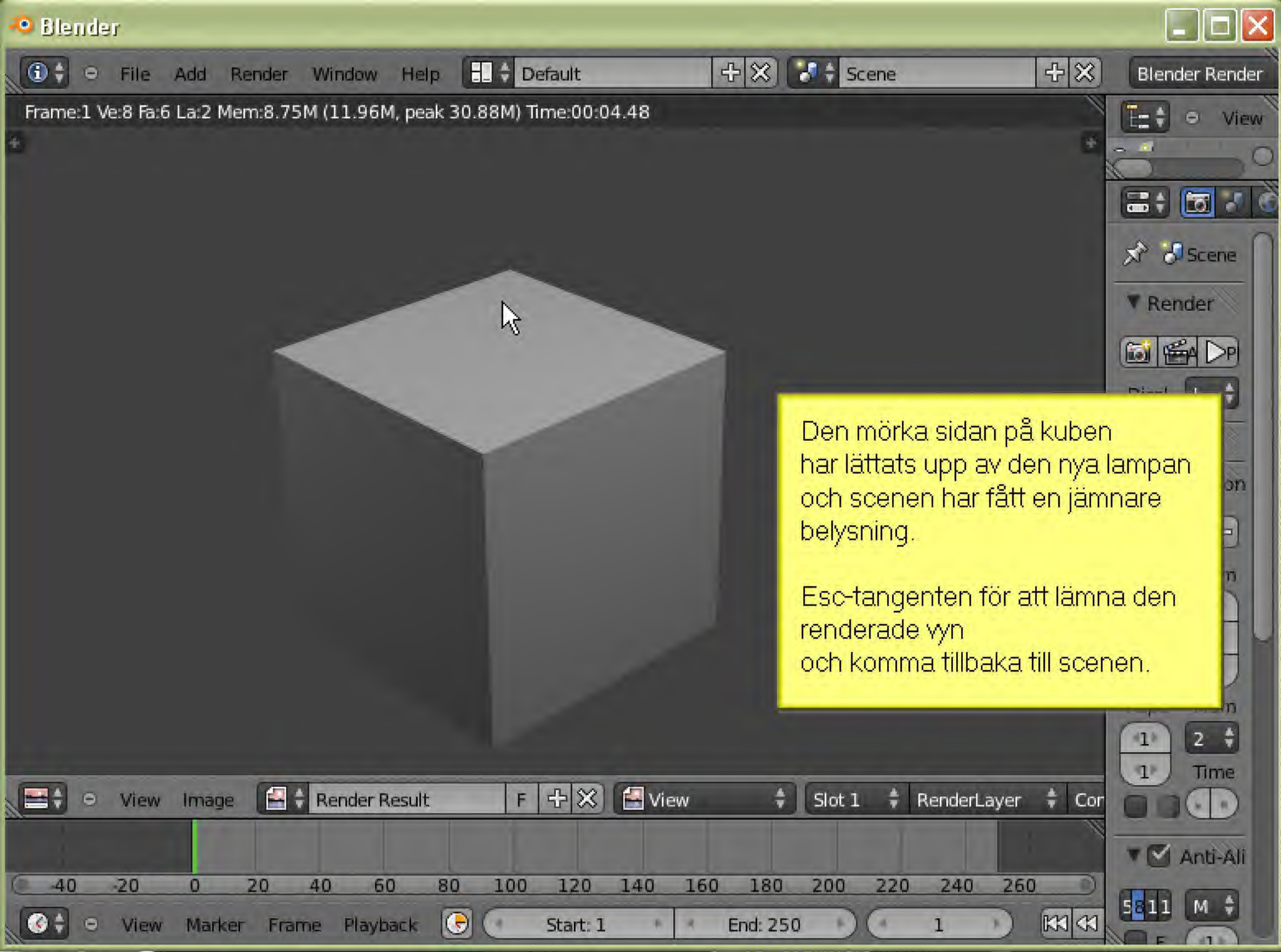
CTRL+Z ångrar en förflyttning.





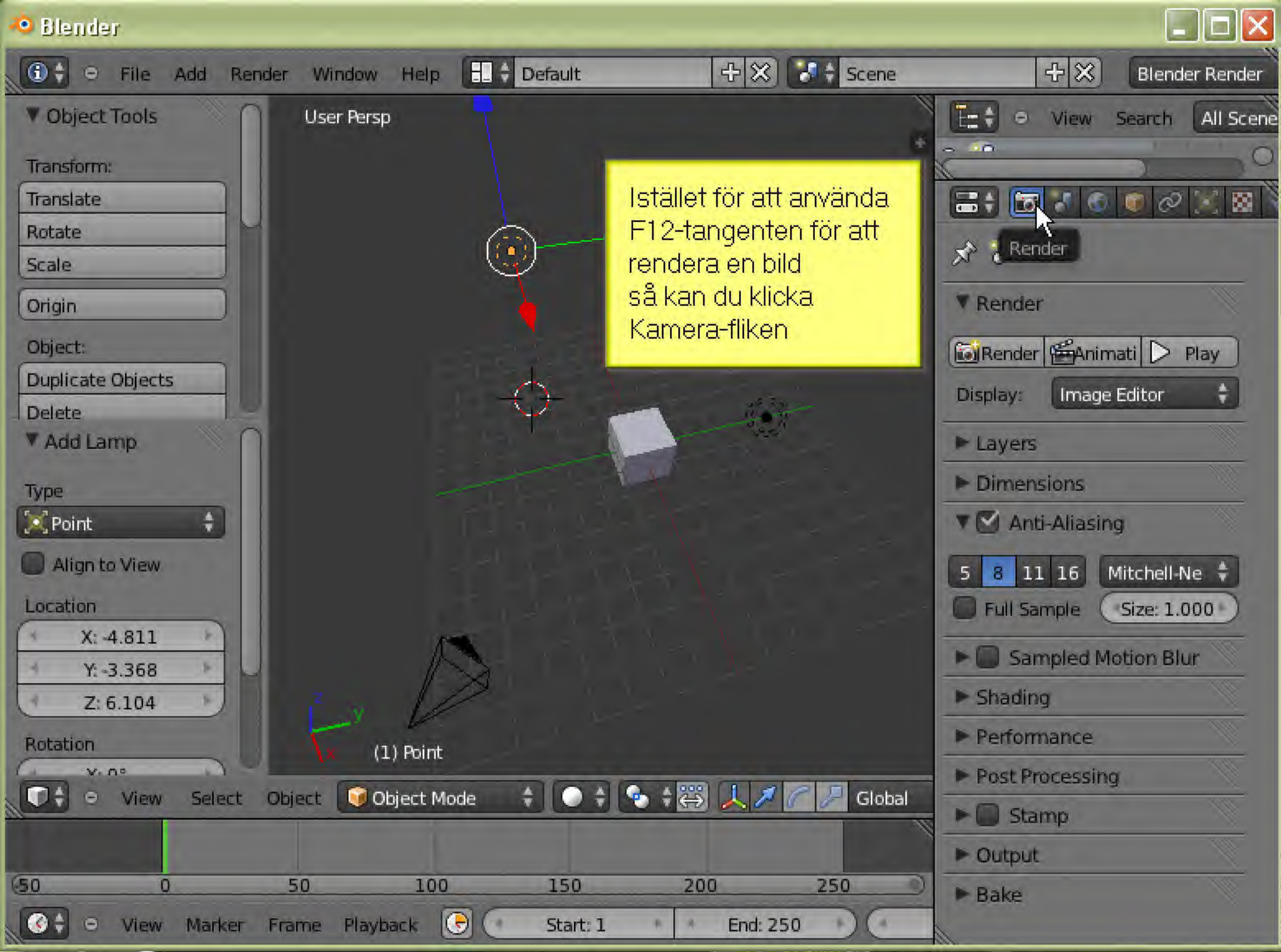




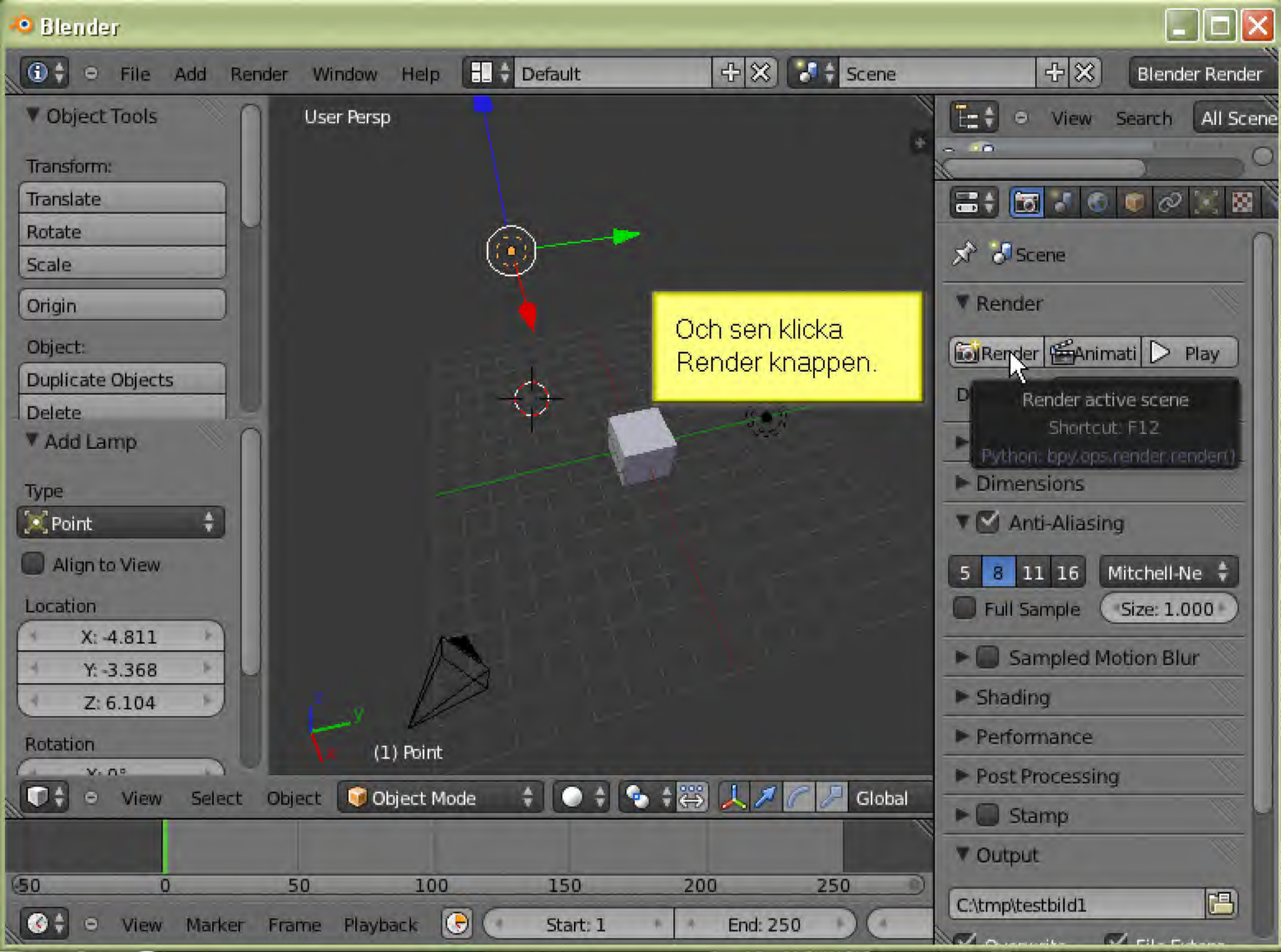
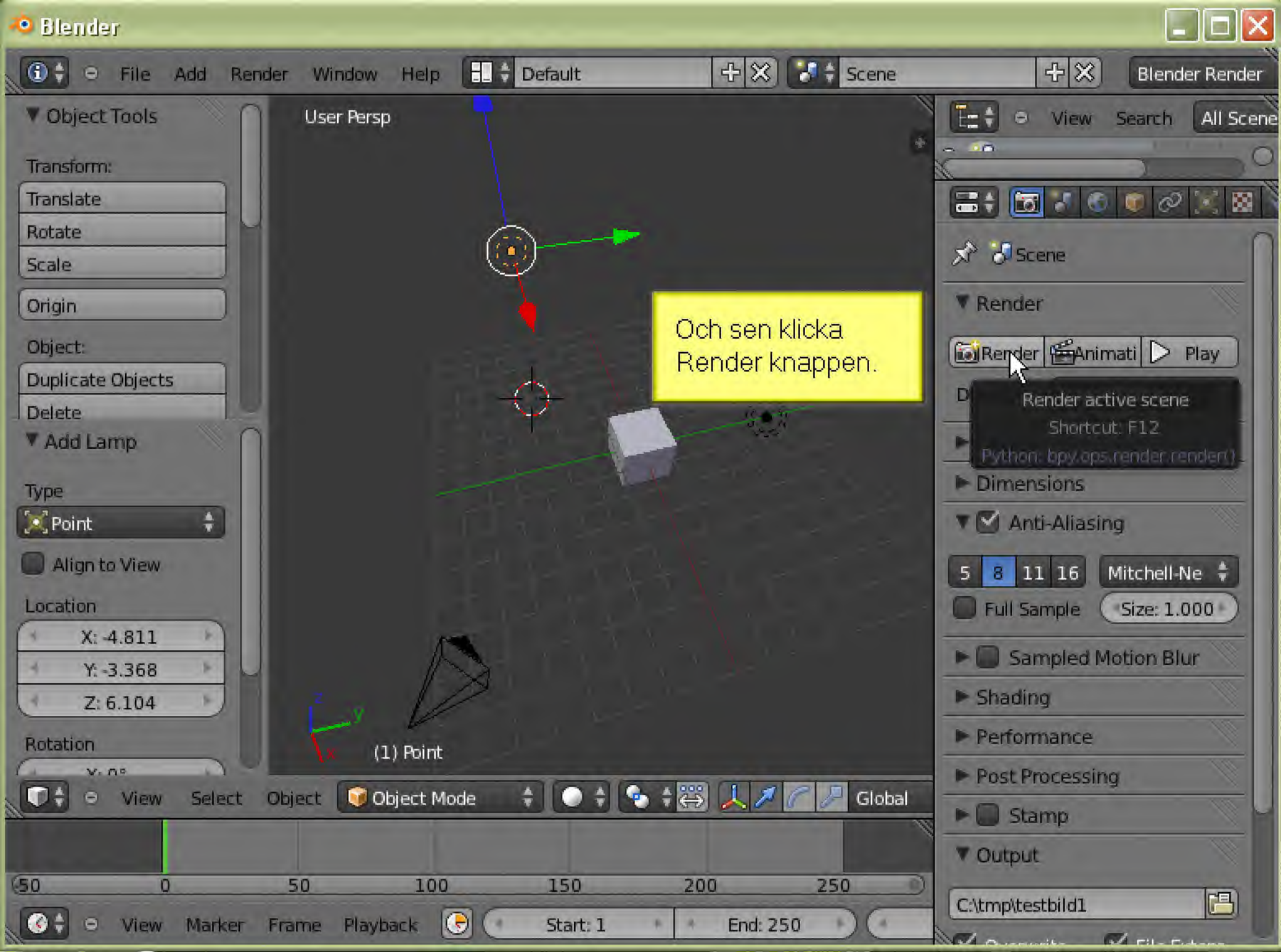


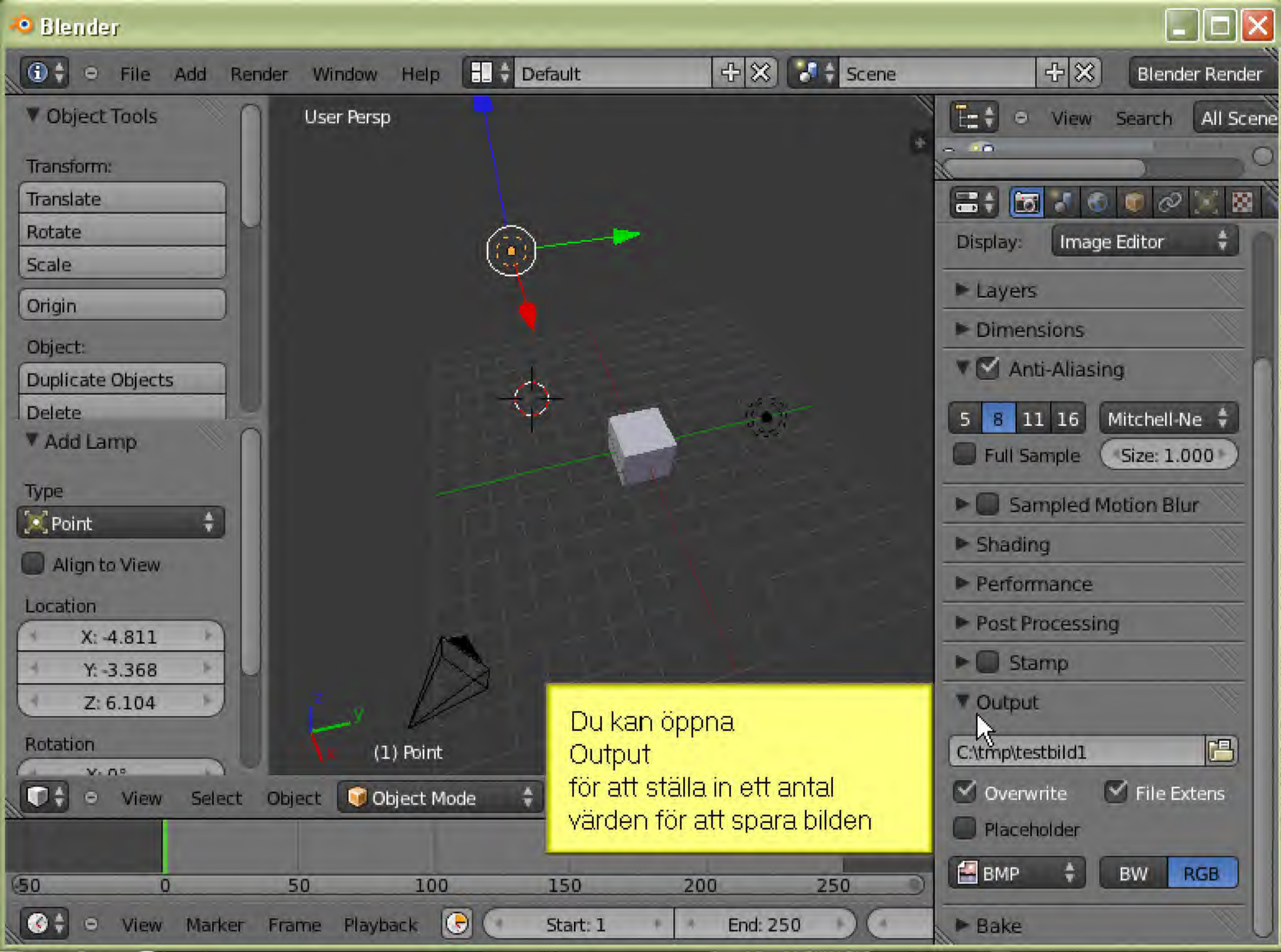
Den mörka sidan på kuben har lättats upp av den nya lampan och scenen har fått en jämnare belysning.

Eso-tangenten för att lämna den renderade vyn och komma tillbaka till scenen.

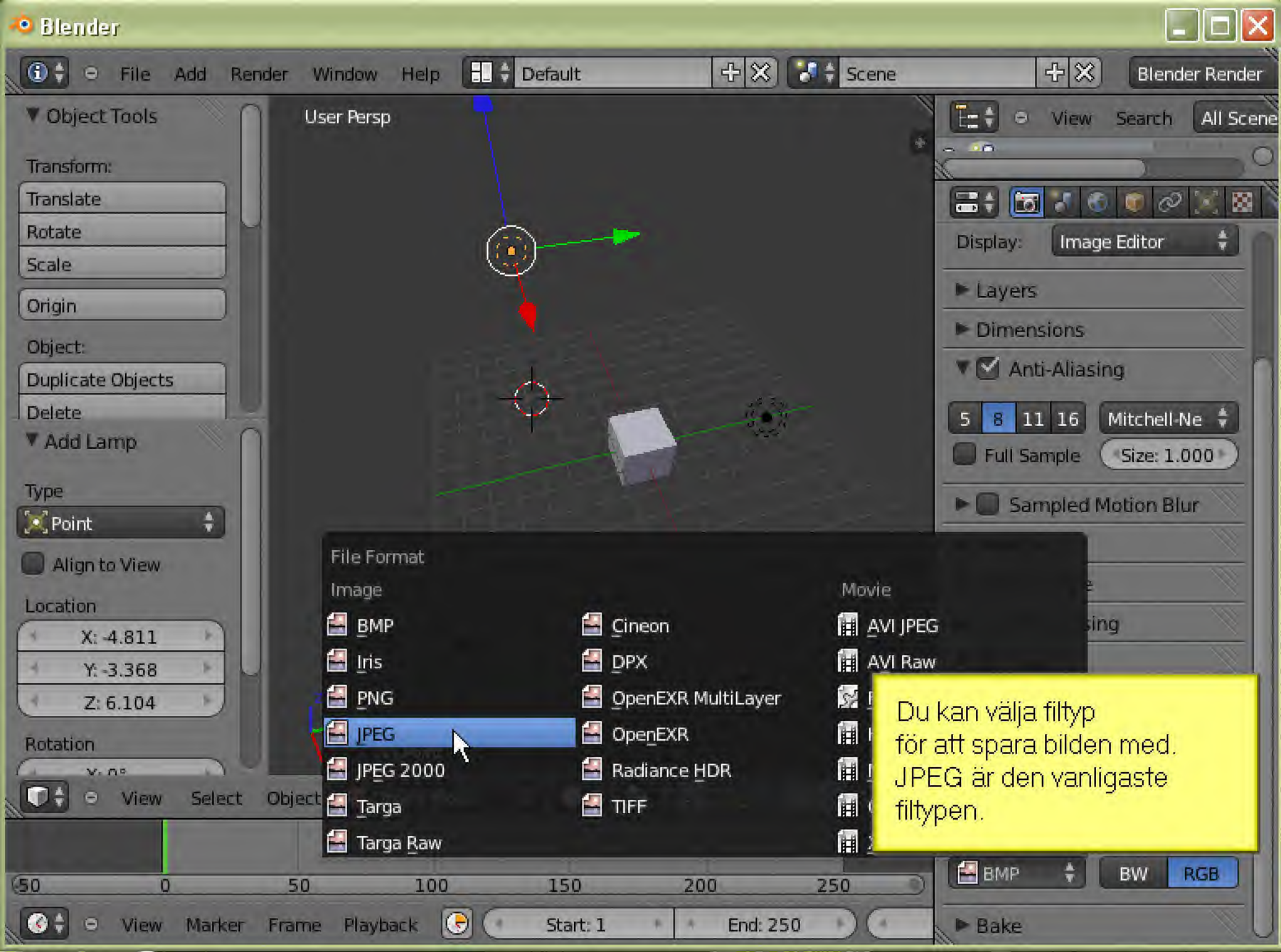


Istället för att använda
F12-tangenten för att
rendera en bild
så kan du klicka
Kamera-fliken





Du kan öppna
Output
för att ställa in ett antal
värden för att spara bilden



File Format

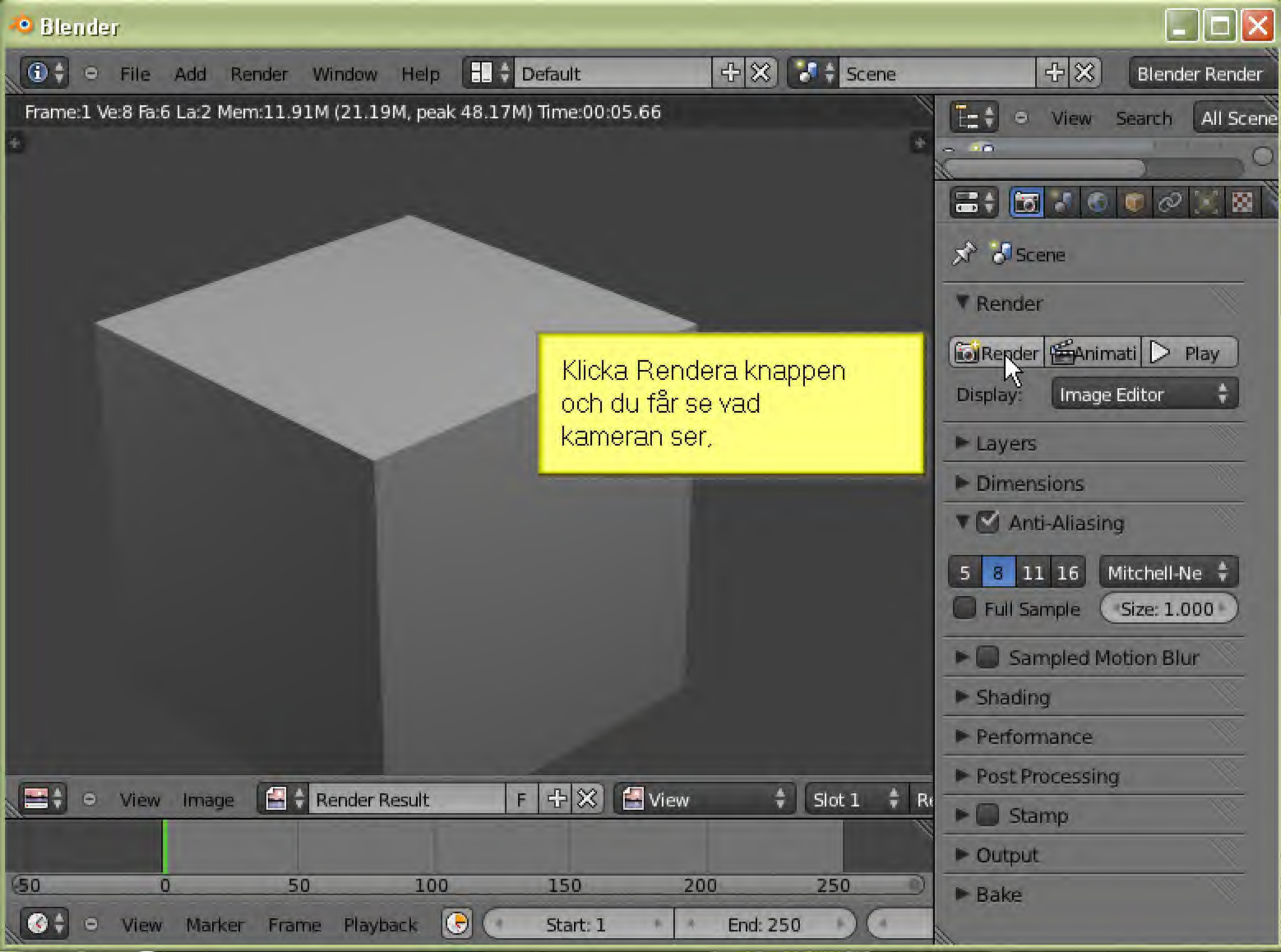
Image

BMP	Cineon
Iris	DPX
PNG	OpenEXR MultiLayer
JPEG	OpenEXR
JPEG 2000	Radiance HDR
Targa	TIFF
Targa Raw	

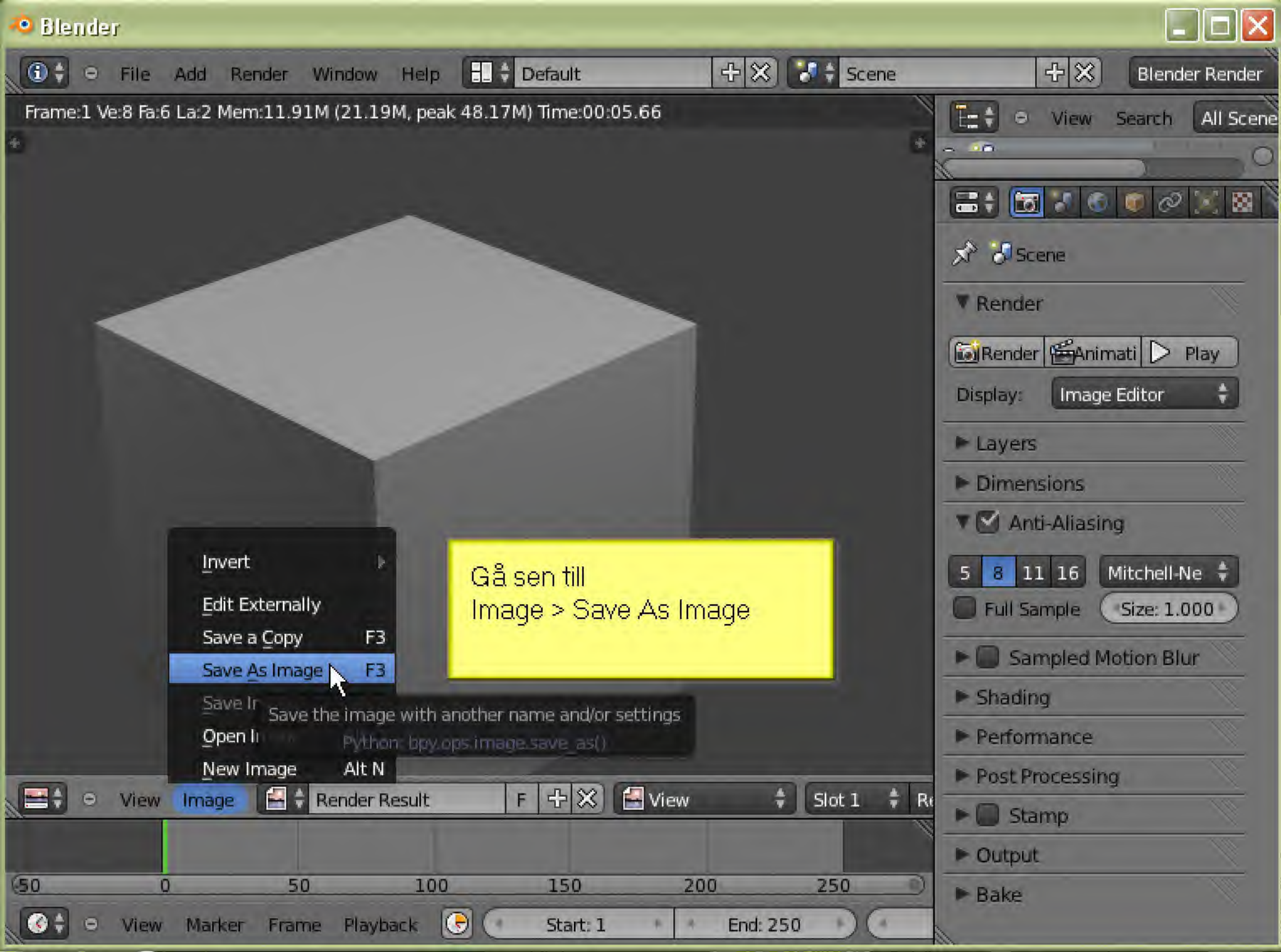
Movie

AVI JPEG
AVI Raw
H.264
H.264 + AAC
H.264 + AAC + SRT
H.264 + AAC + SRT + Video
H.264 + AAC + SRT + Video + Audio
H.264 + AAC + SRT + Video + Audio + Subtitle
H.264 + AAC + SRT + Video + Audio + Subtitle + Metadata

Du kan välja filtyp för att spara bilden med. JPEG är den vanligaste filtypen.



Klicka Rendera knappen
och du får se vad
kameran ser.



- Invert
- Edit Externally
- Save a Copy F3
- Save As Image F3
- Save In
- Open In
- New Image Alt N

Gå sen till
Image > Save As Image

View Search All Scene

Scene

Render

Render Animati Play

Display: Image Editor

Layers

Dimensions

Anti-Aliasing

5 8 11 16 Mitchell-Ne

Full Sample Size: 1.000

Sampled Motion Blur

Shading

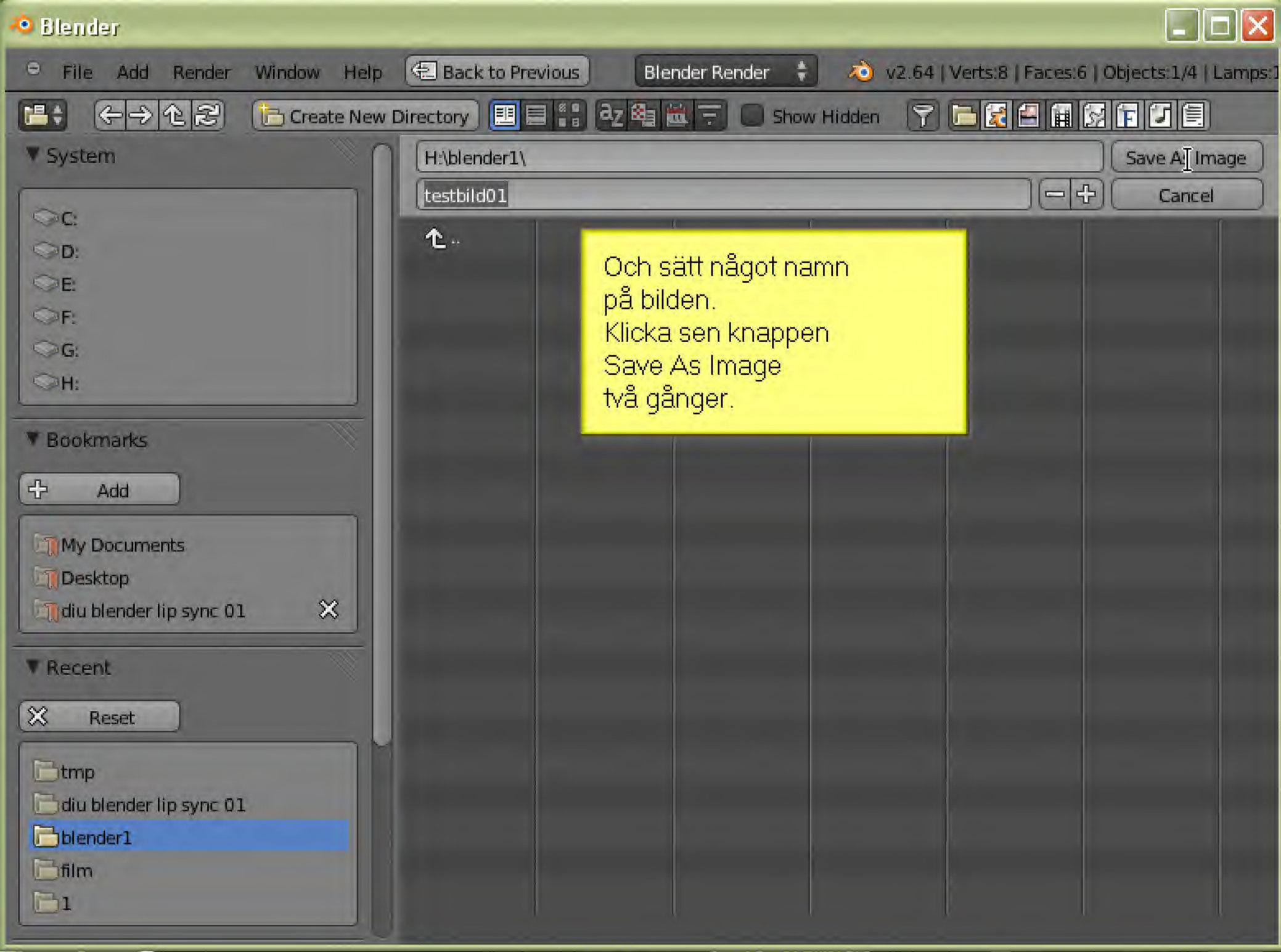
Performance

Post Processing

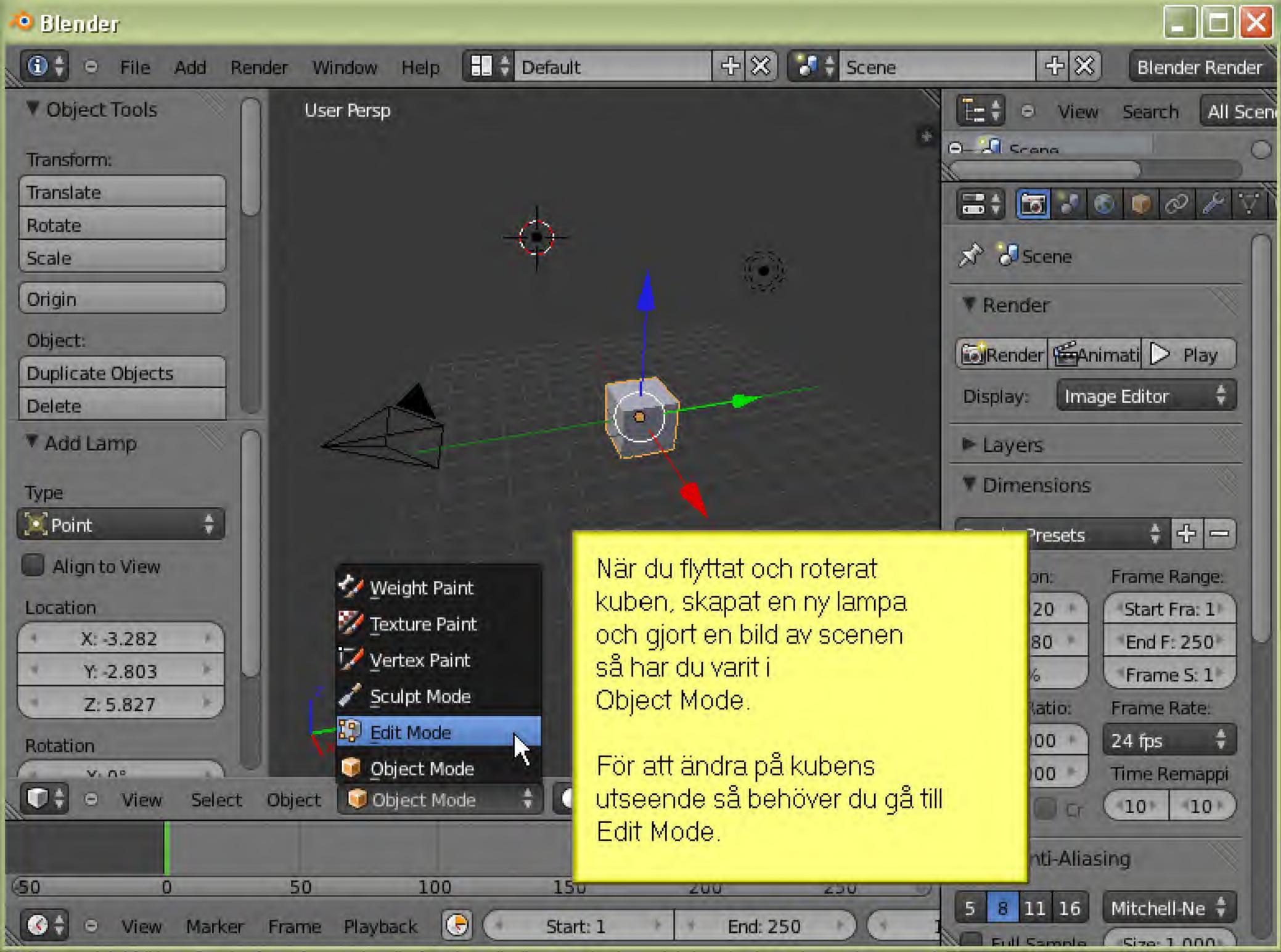
Stamp

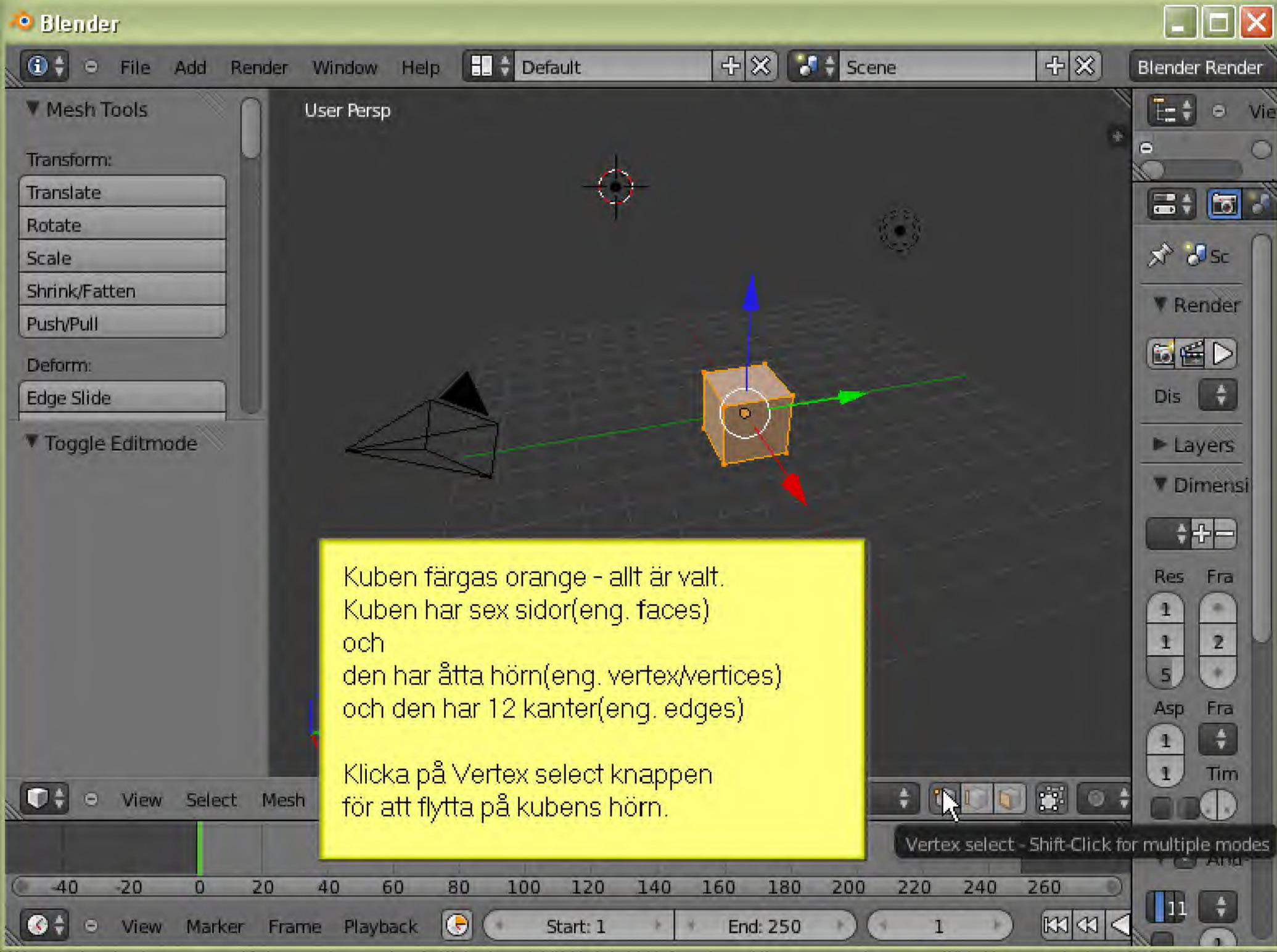
Output

Bake



Och sätt något namn
på bilden.
Klicka sen knappen
Save As Image
två gånger.

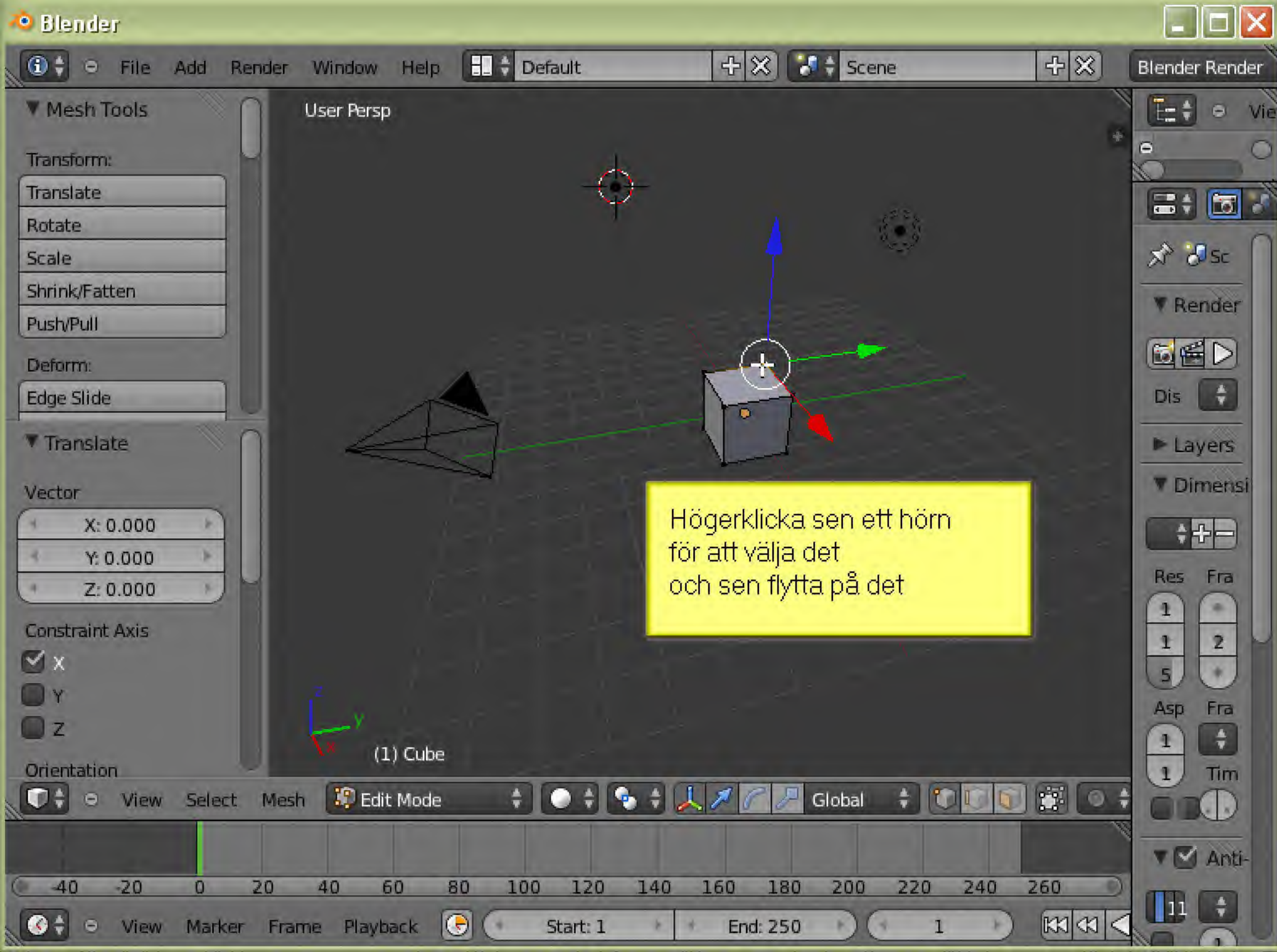


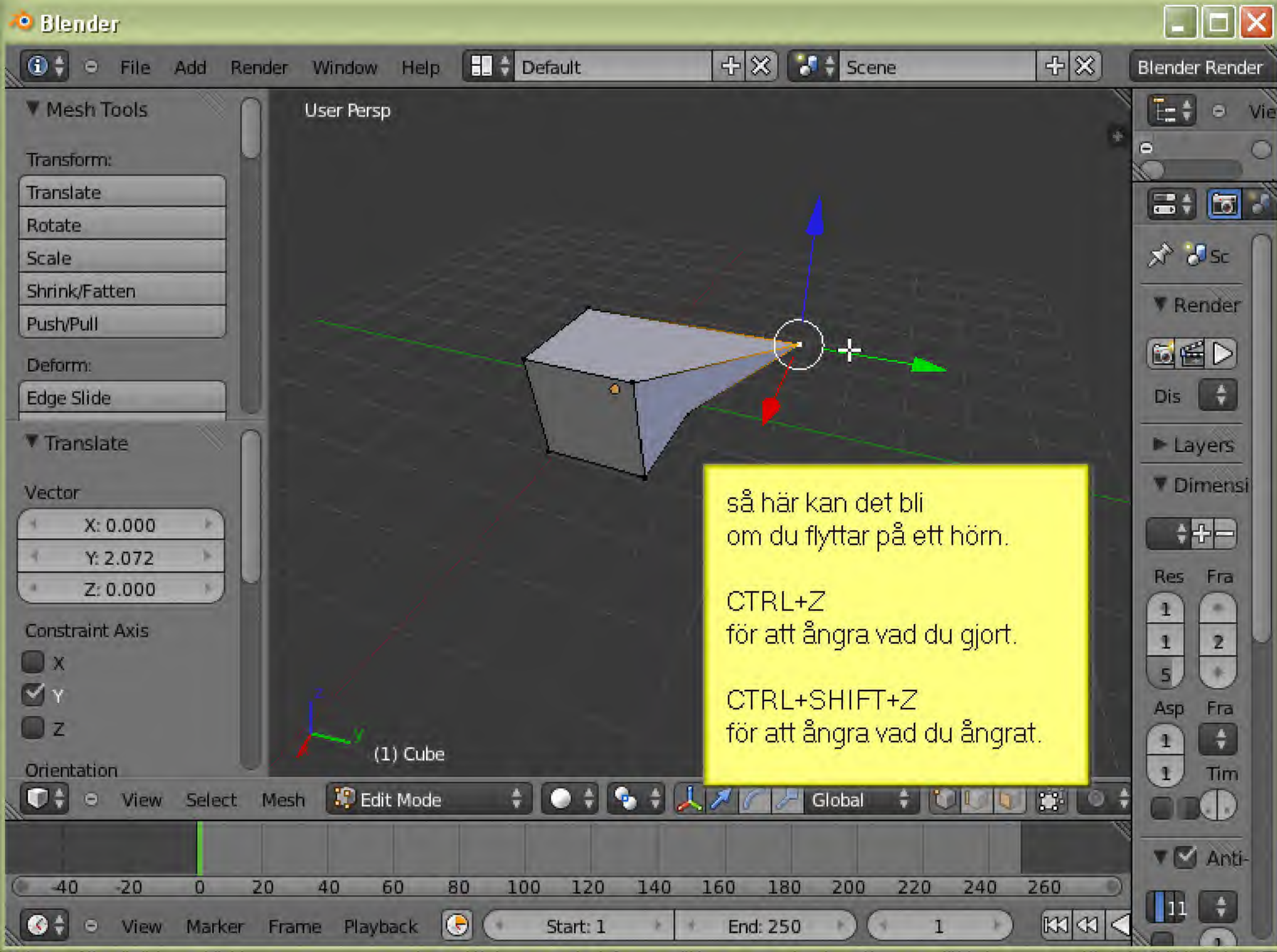


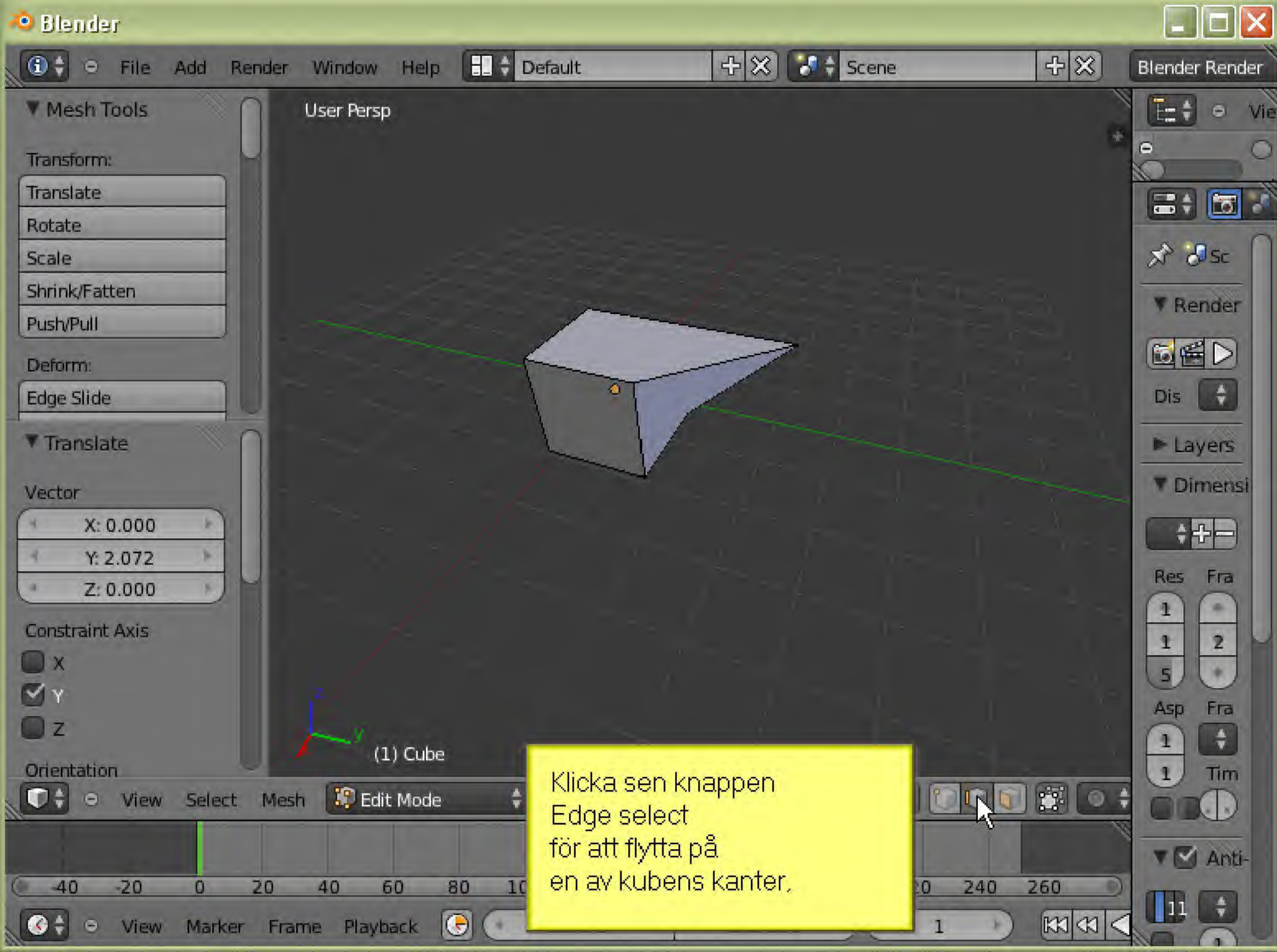
Kuben färgas orange - allt är valt.
Kuben har sex sidor(eng. faces)
och
den har åtta hörn(eng. vertex/vertices)
och den har 12 kanter(eng. edges)

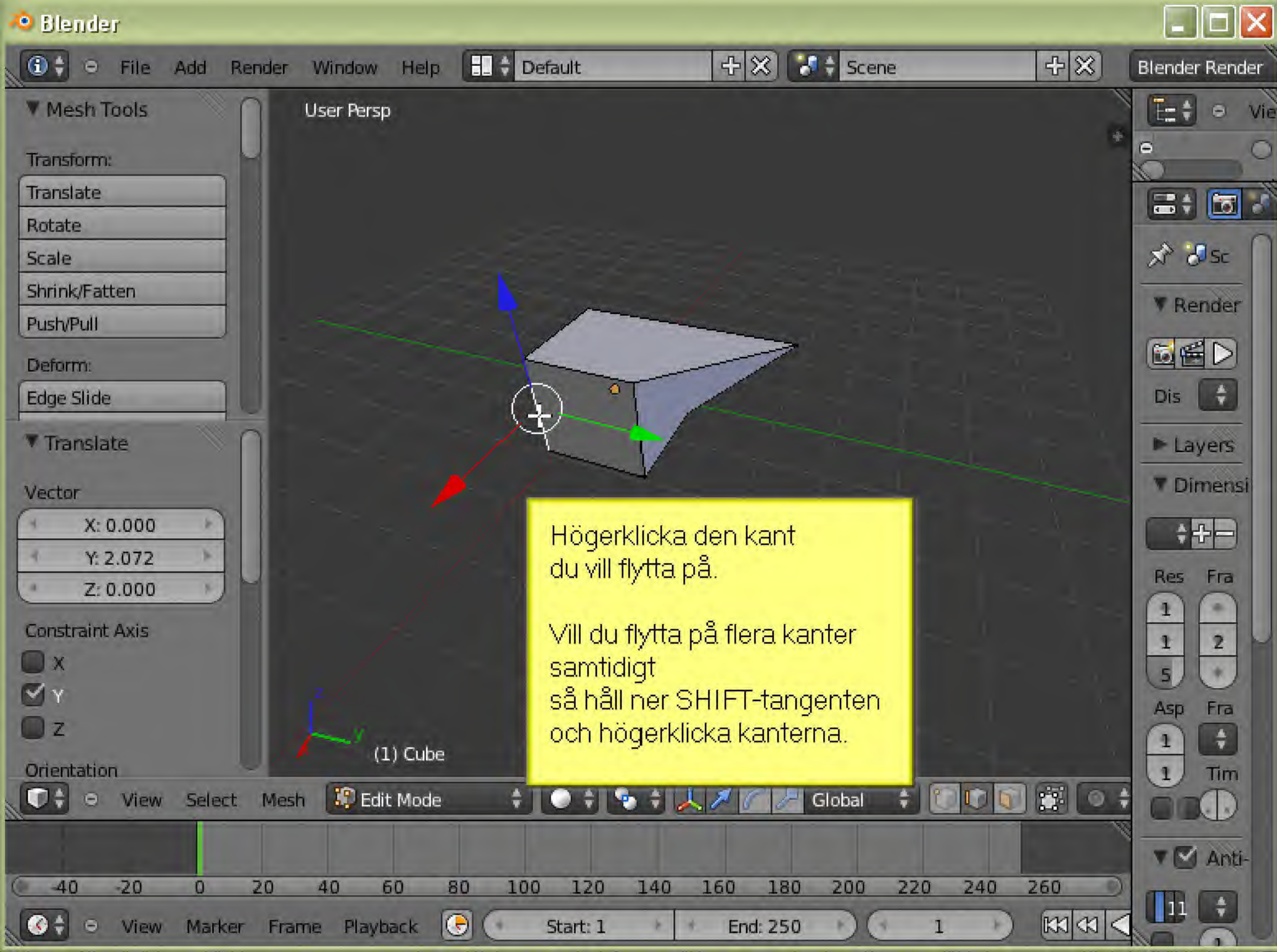
Klicka på Vertex select knappen
för att flytta på kubens hörn.

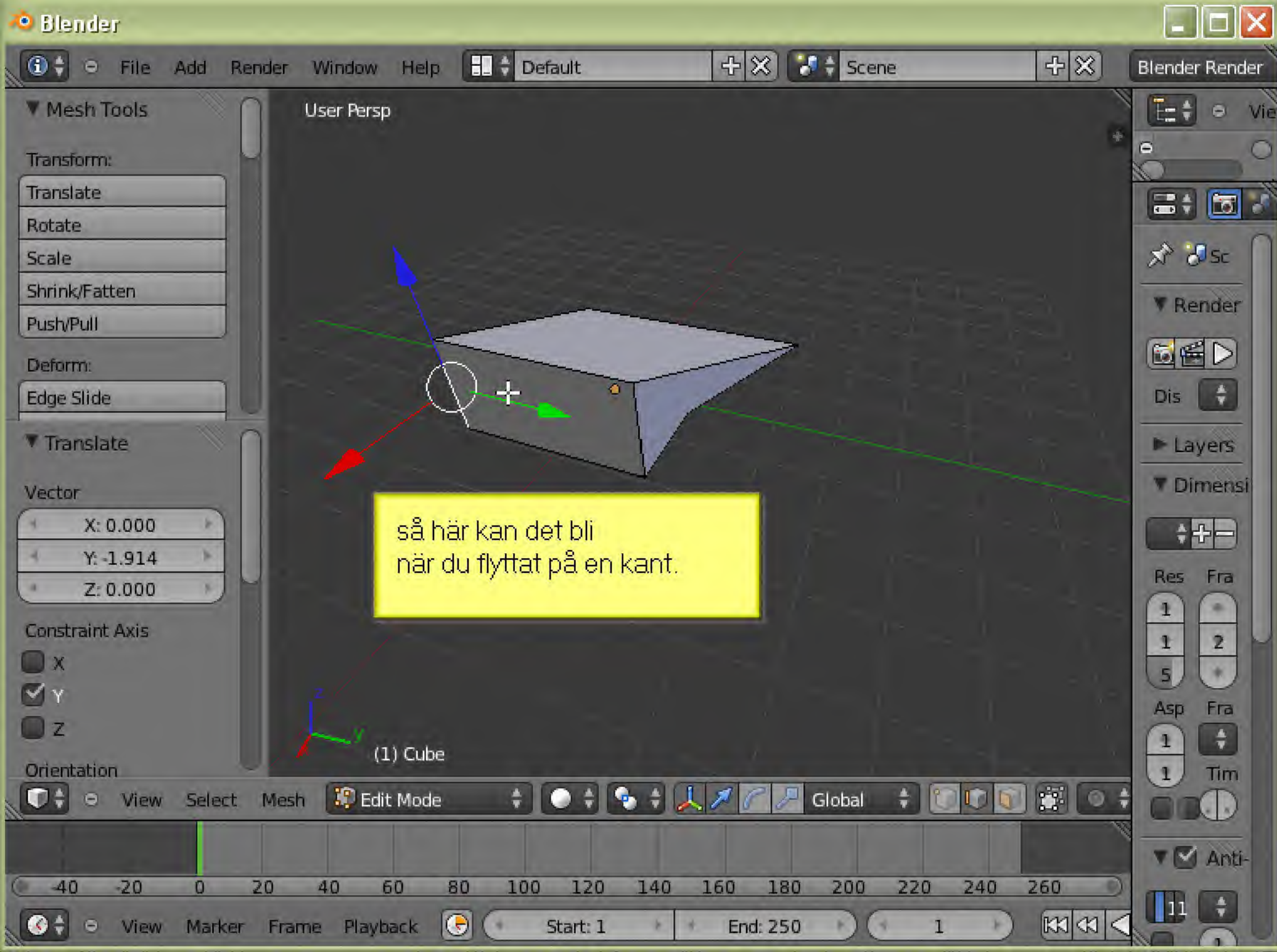
Vertex select - Shift-Click for multiple modes

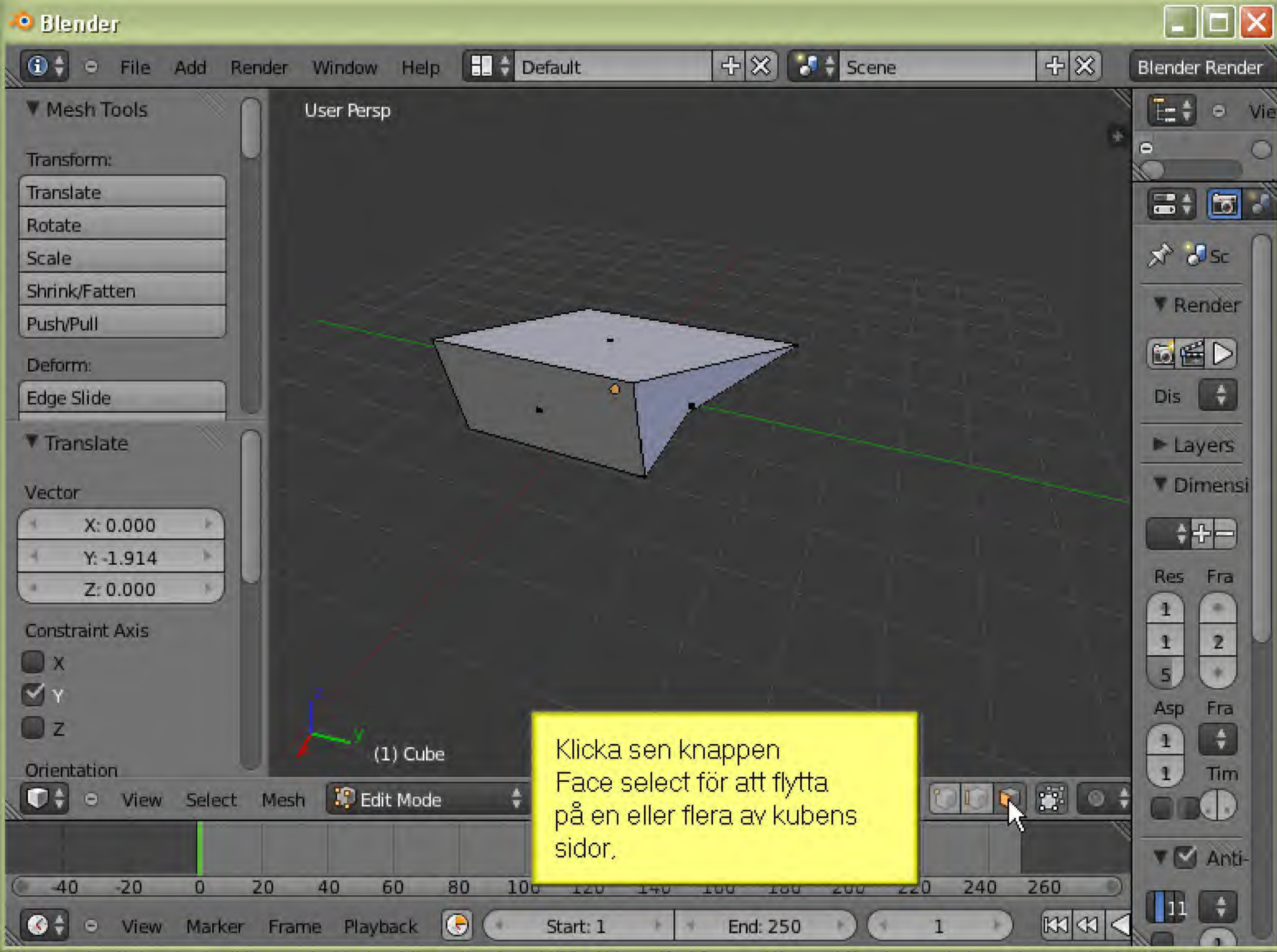


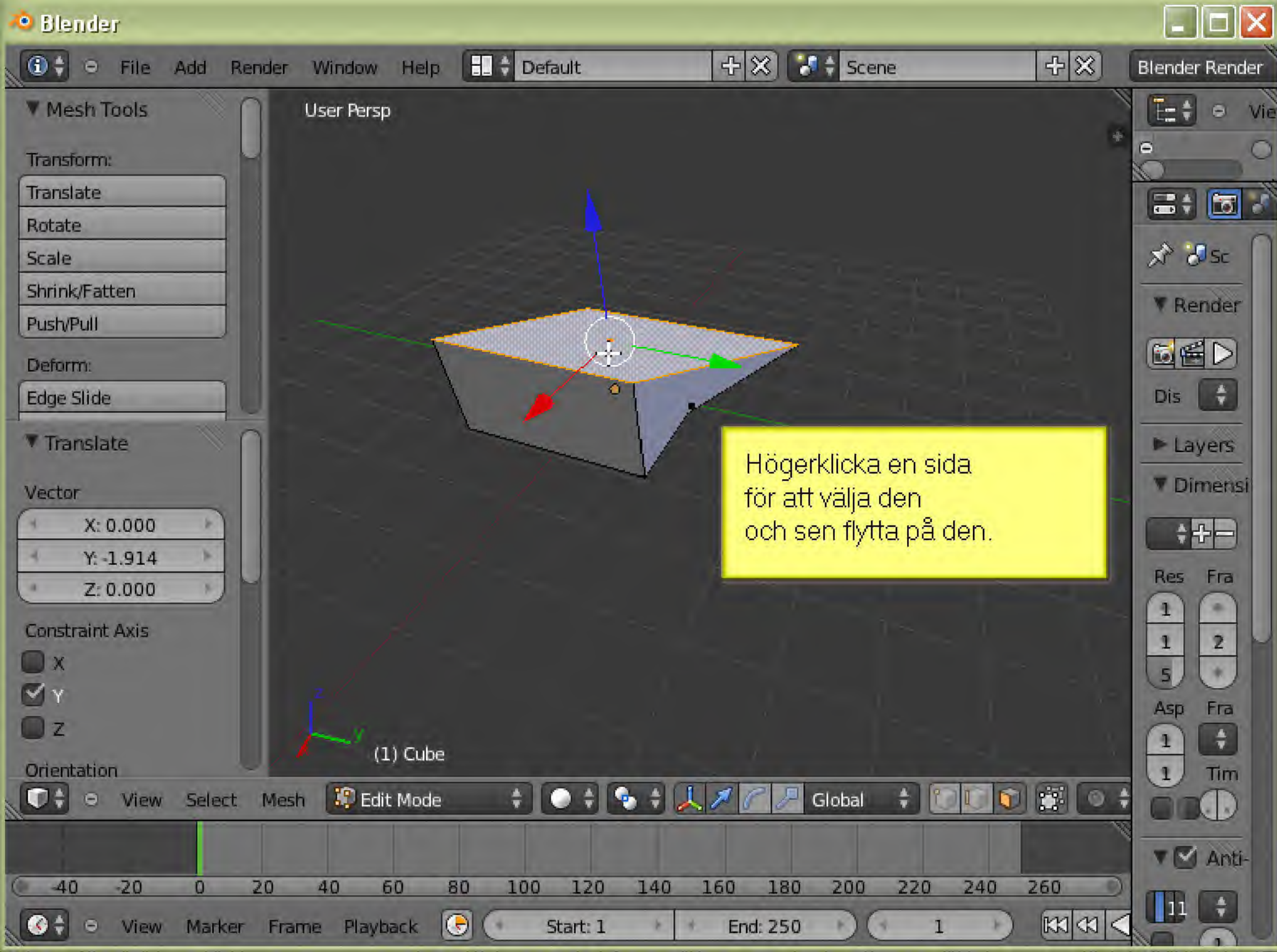


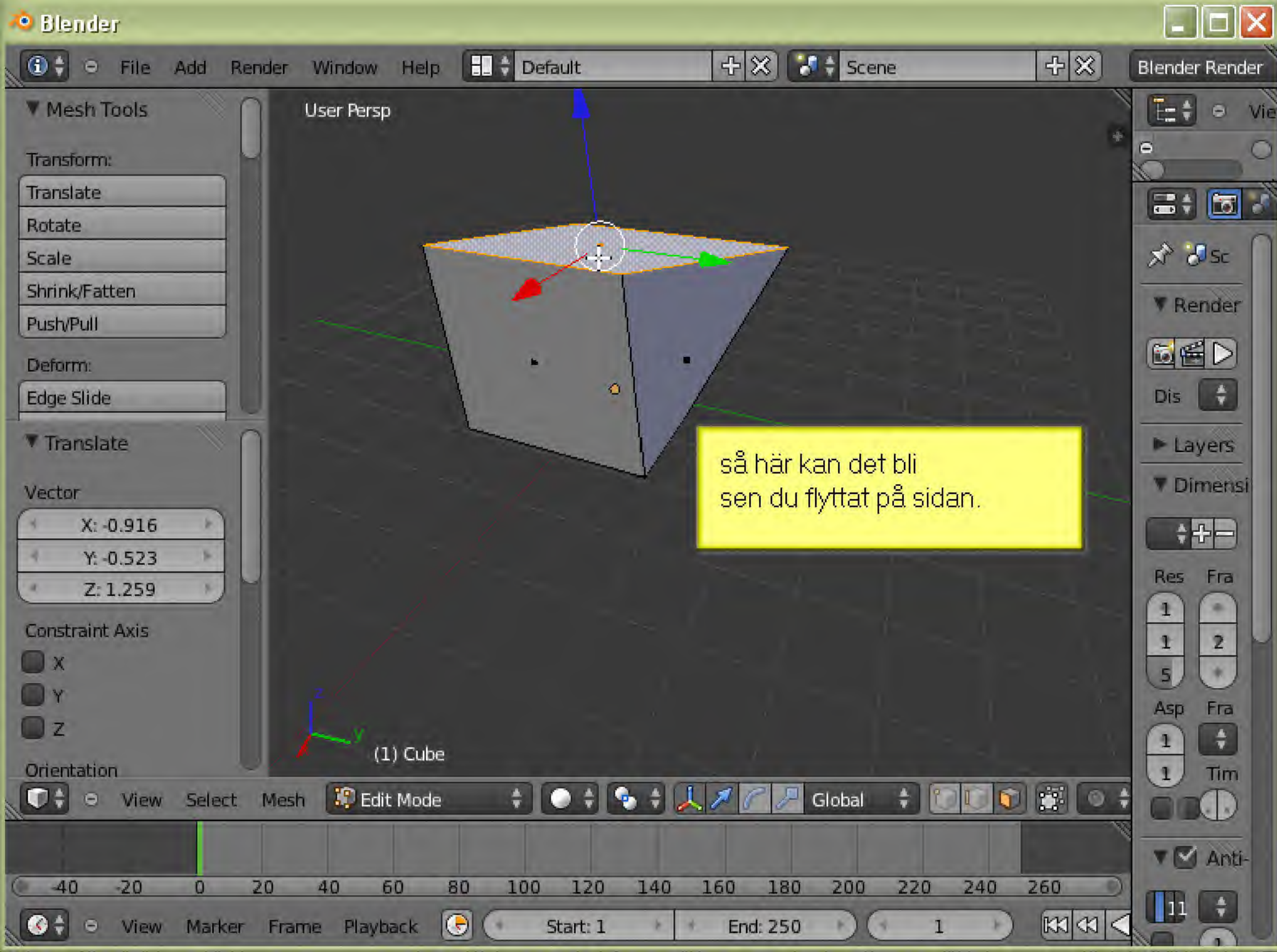


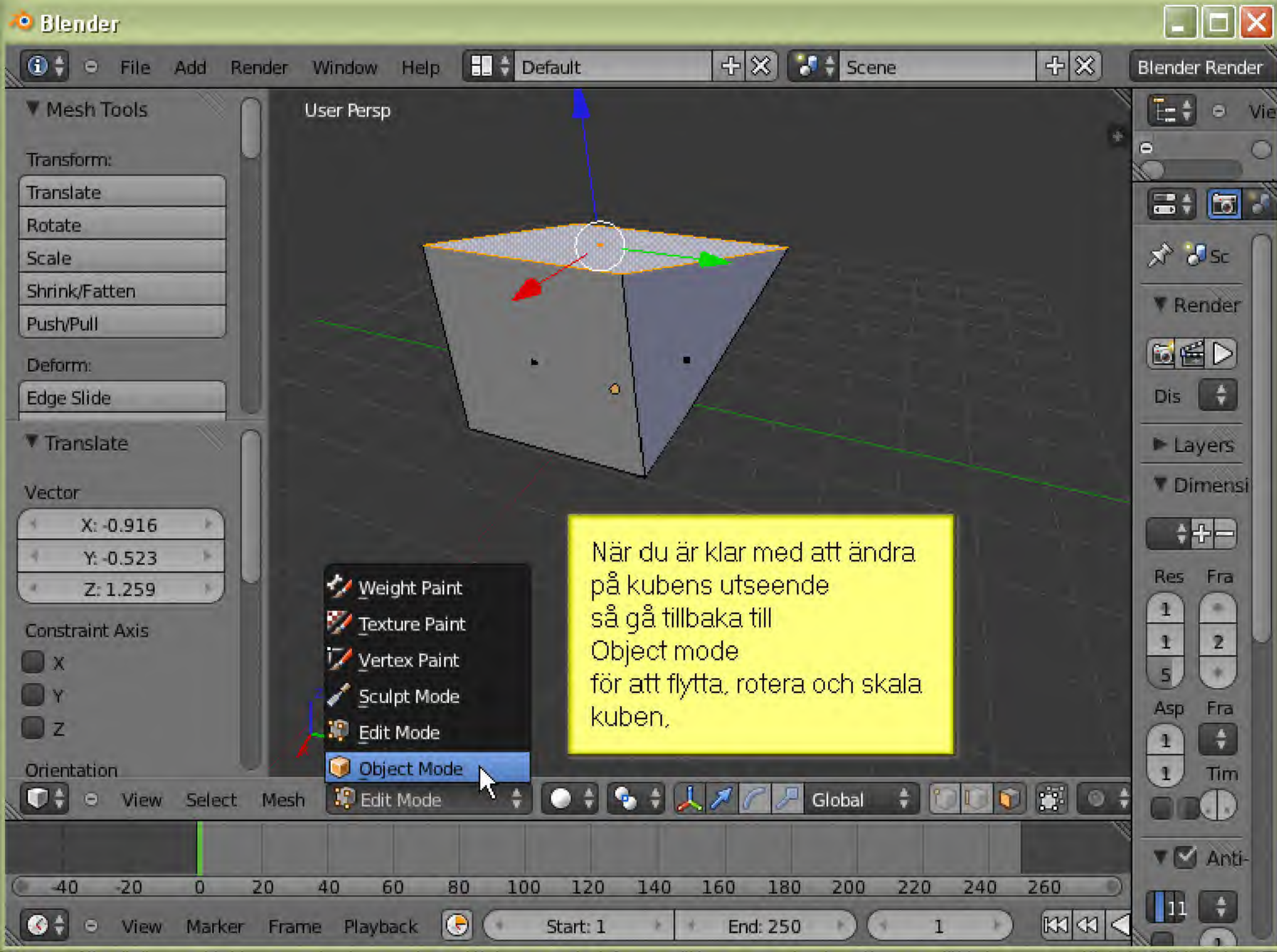


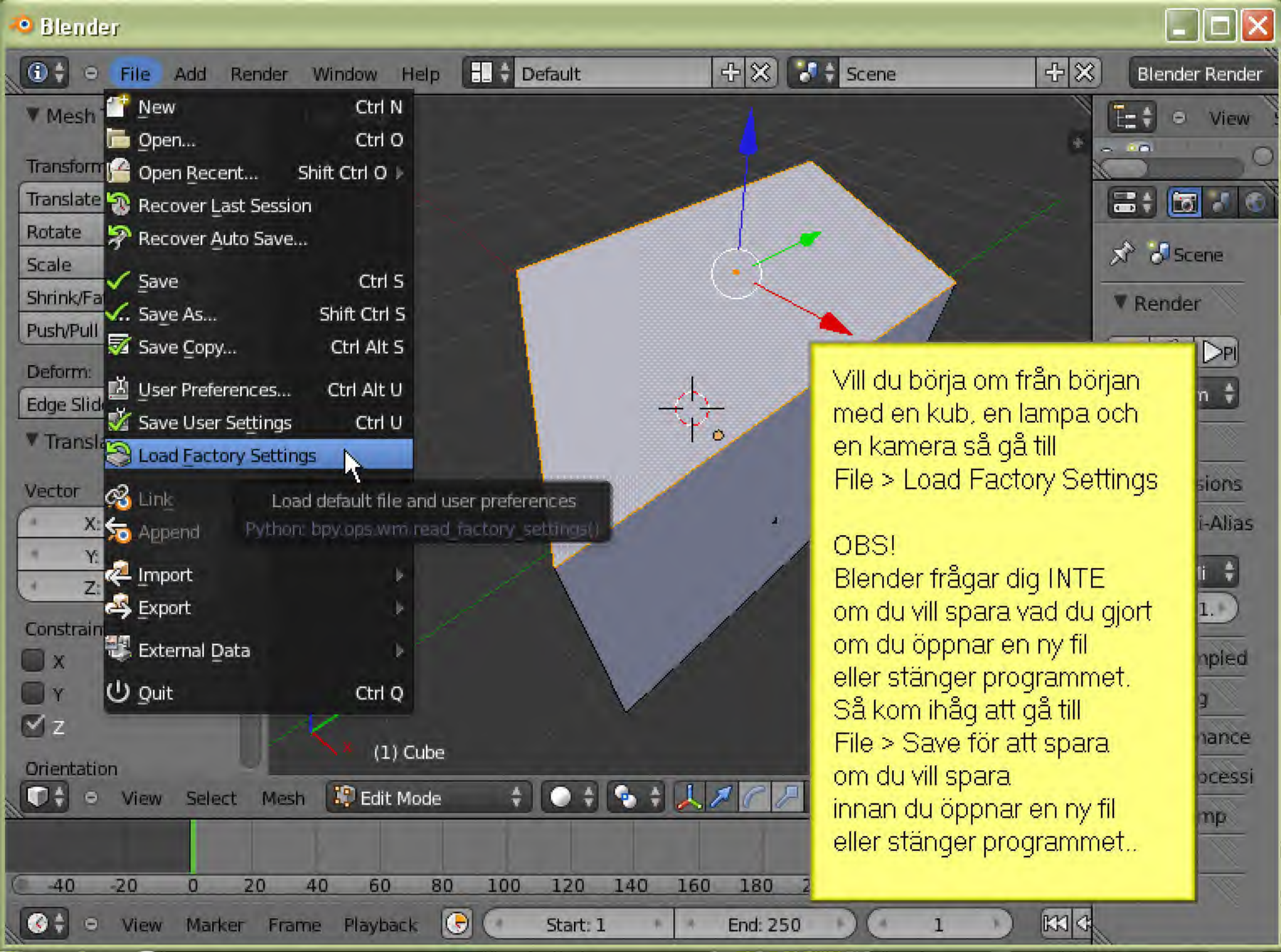






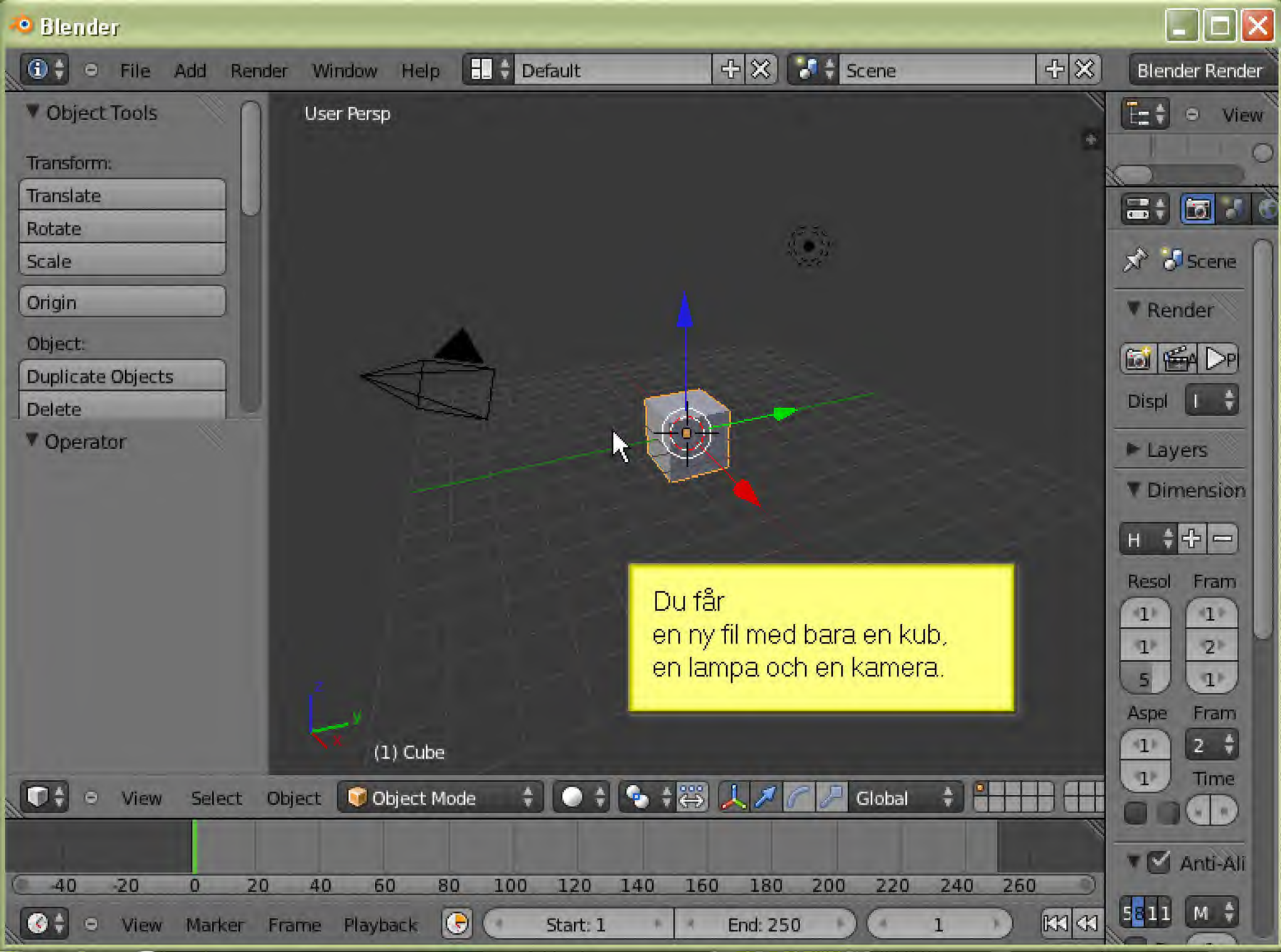






Vill du börja om från början med en kub, en lampa och en kamera så gå till
File > Load Factory Settings

OBS!
Blender frågar dig INTE om du vill spara vad du gjort om du öppnar en ny fil eller stänger programmet. Så kom ihåg att gå till File > Save för att spara om du vill spara innan du öppnar en ny fil eller stänger programmet..



Object Tools

Transform:

Translate

Rotate

Scale

Origin

Object:

Duplicate Objects

Delete

Operator

User Persp

View

Scene

Render

Displ

Layers

Dimension

H

Resol Fram

1 1

1 2

5 1

Aspe Fram

1 2

1 Time

Anti-Ali

5811 M

Du får
en ny fil med bara en kub,
en lampa och en kamera.

(1) Cube

View Select Object Object Mode

Global

-40 -20 0 20 40 60 80 100 120 140 160 180 200 220 240 260

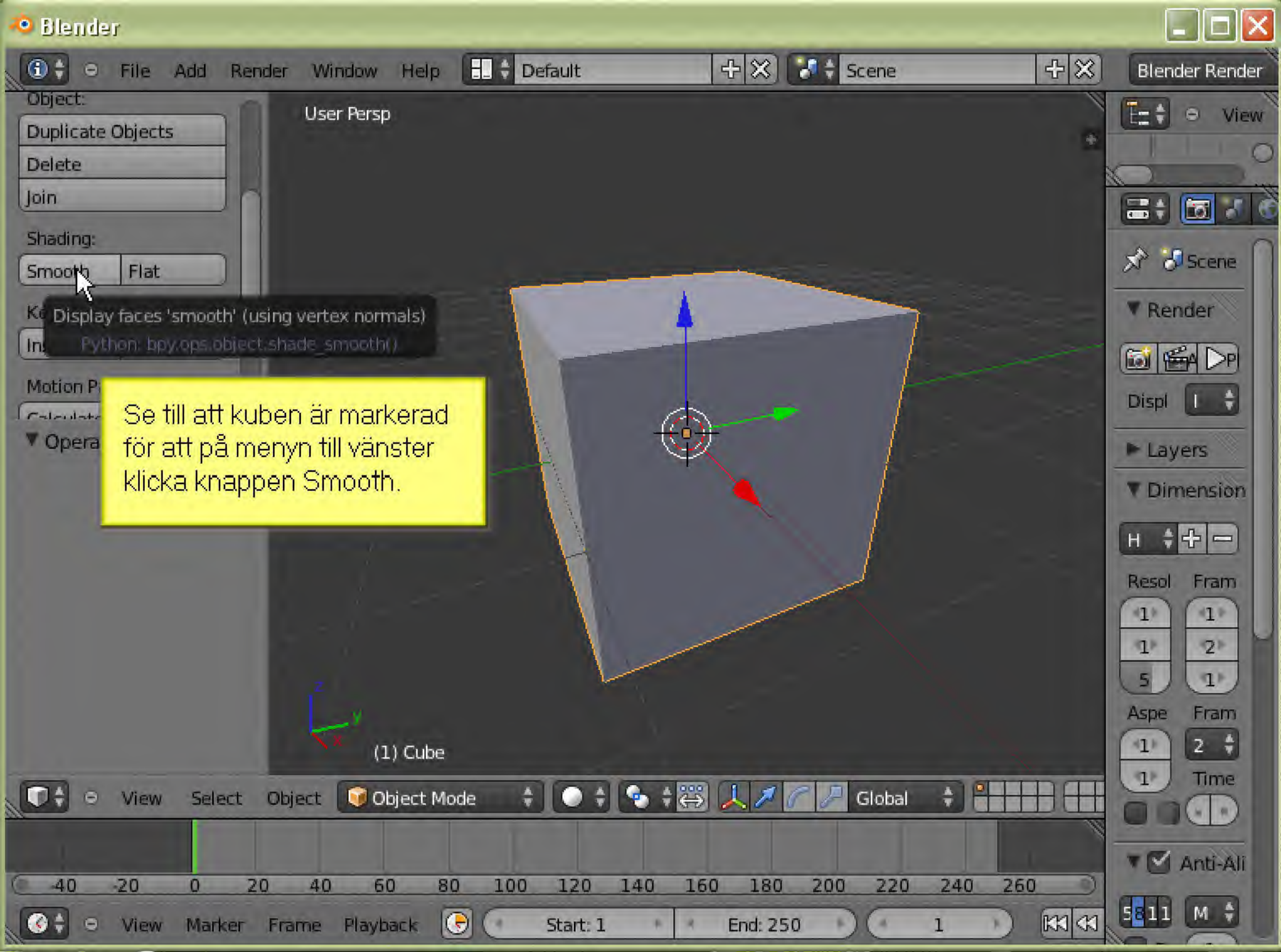
View Marker Frame Playback

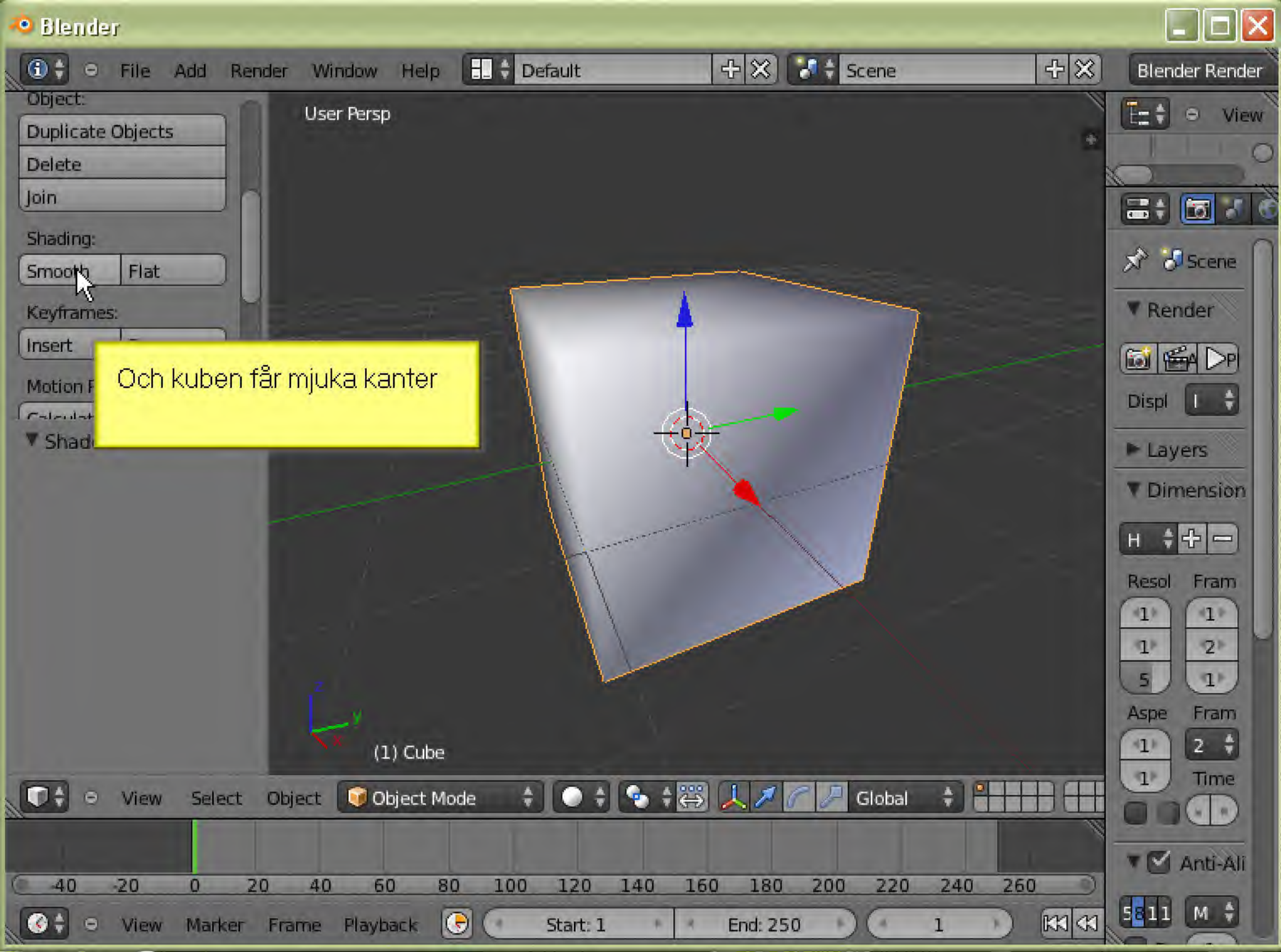
Start: 1

End: 250

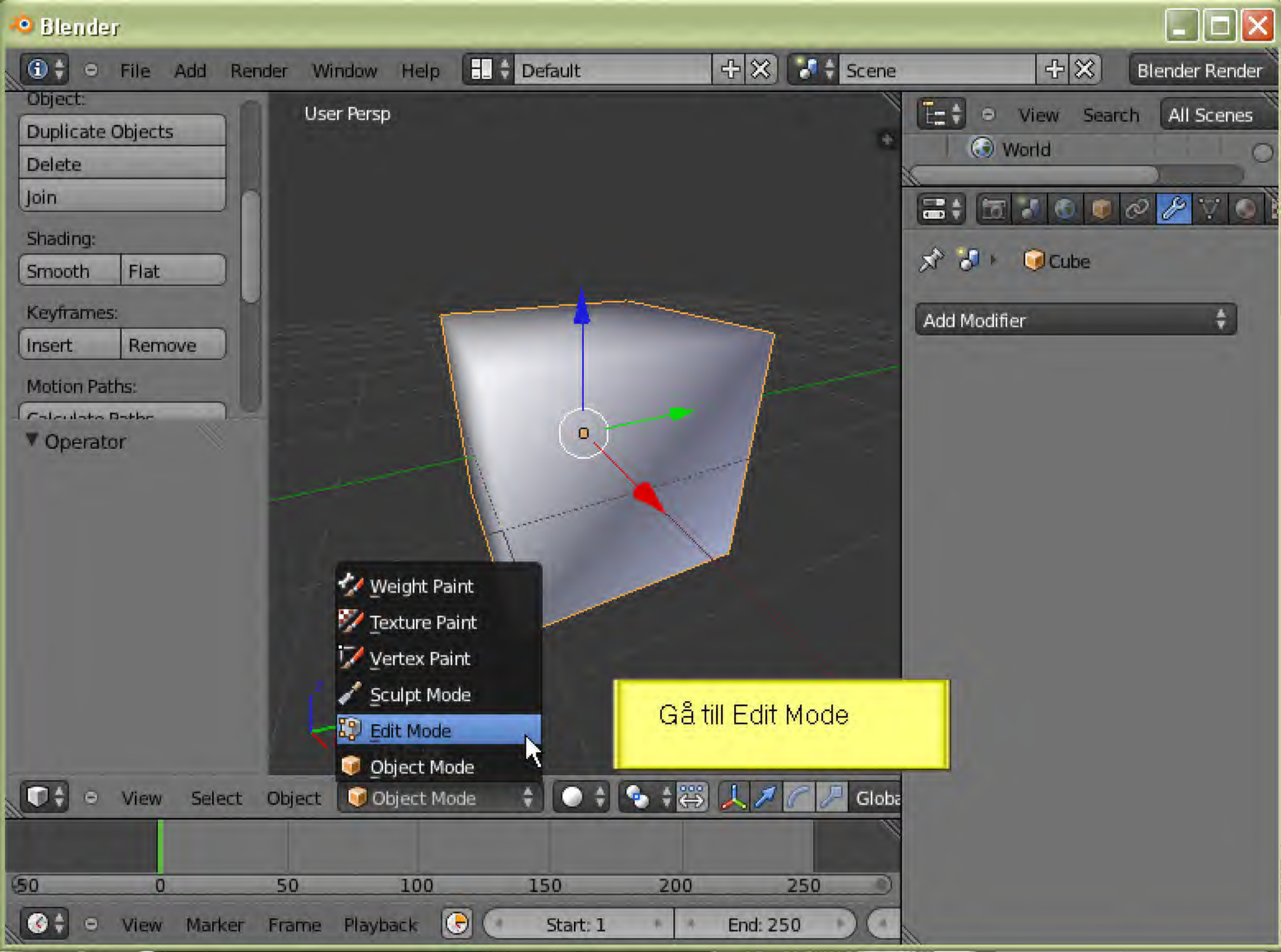
1

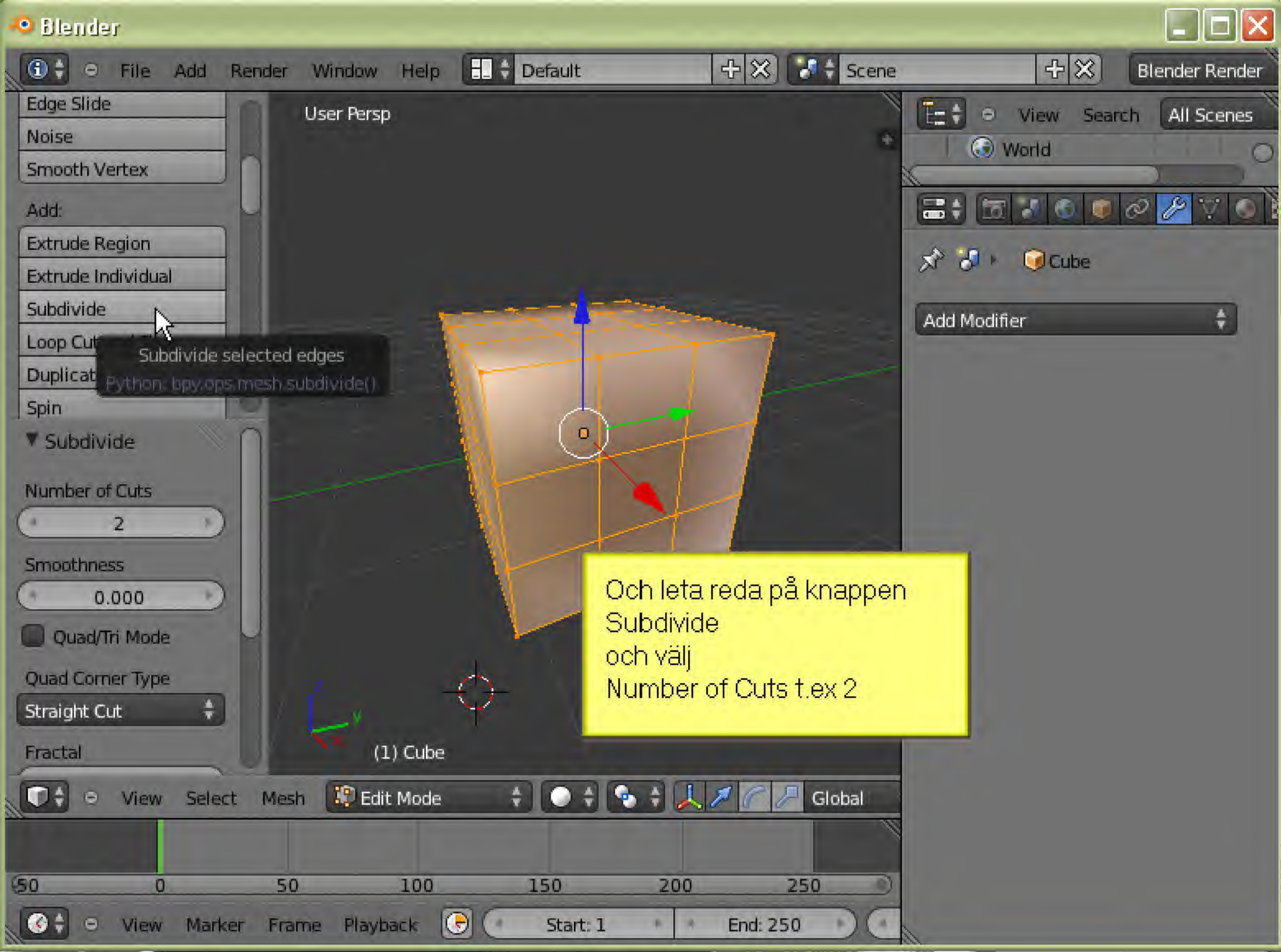
11 M





Och kuben får mjuka kanter

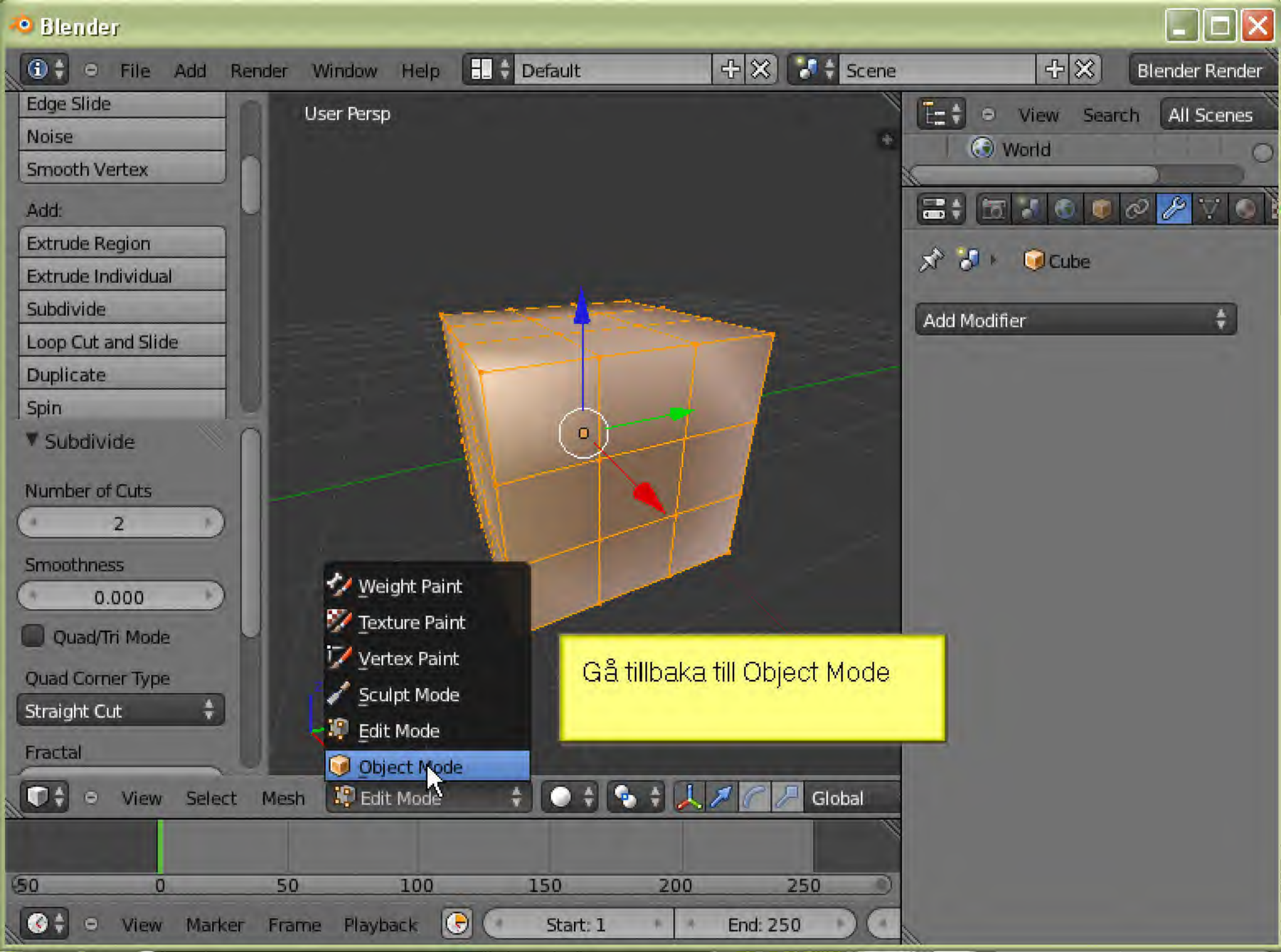


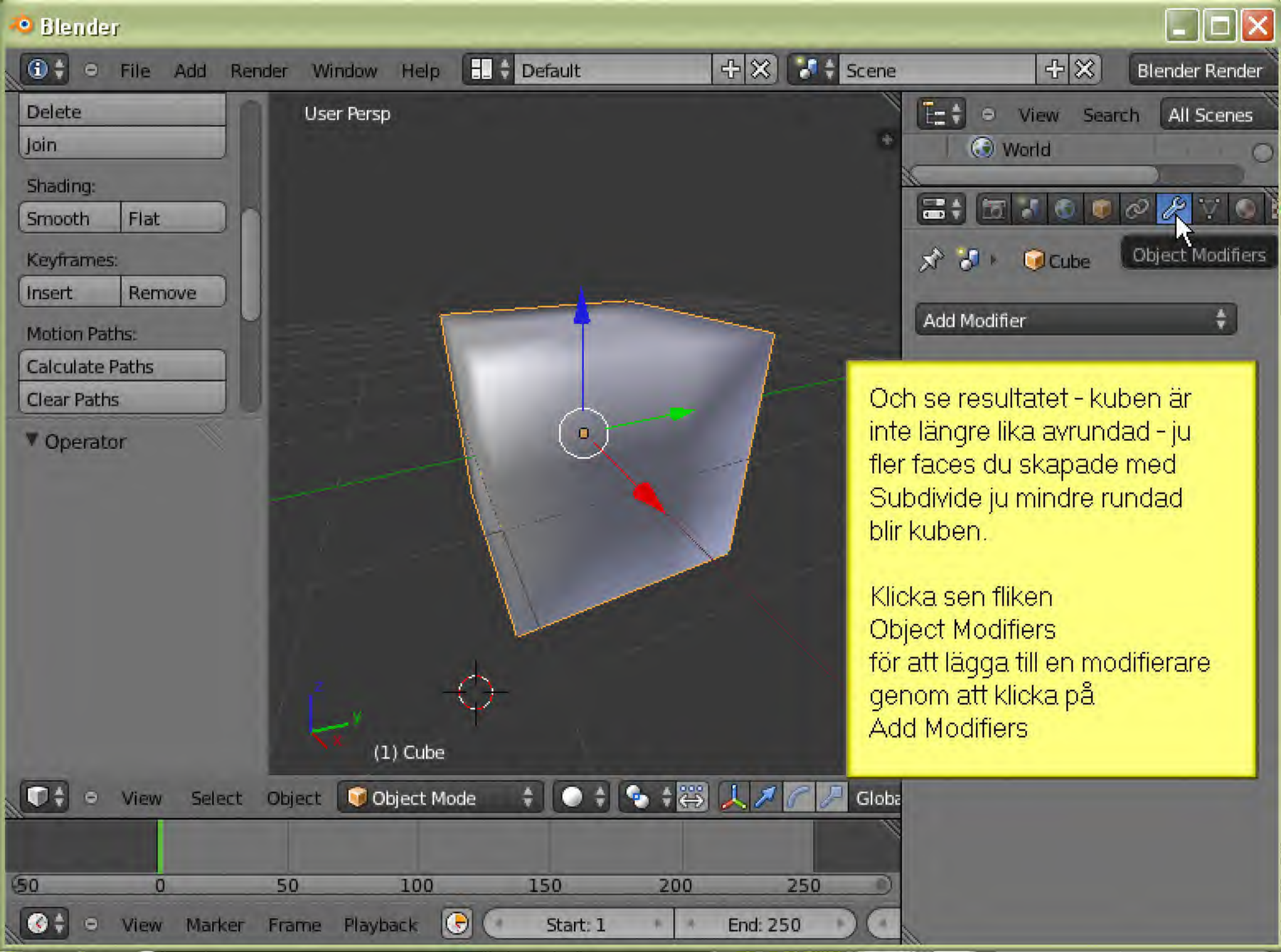


Subdivide selected edges

Python: bpy.ops.mesh.subdivide()

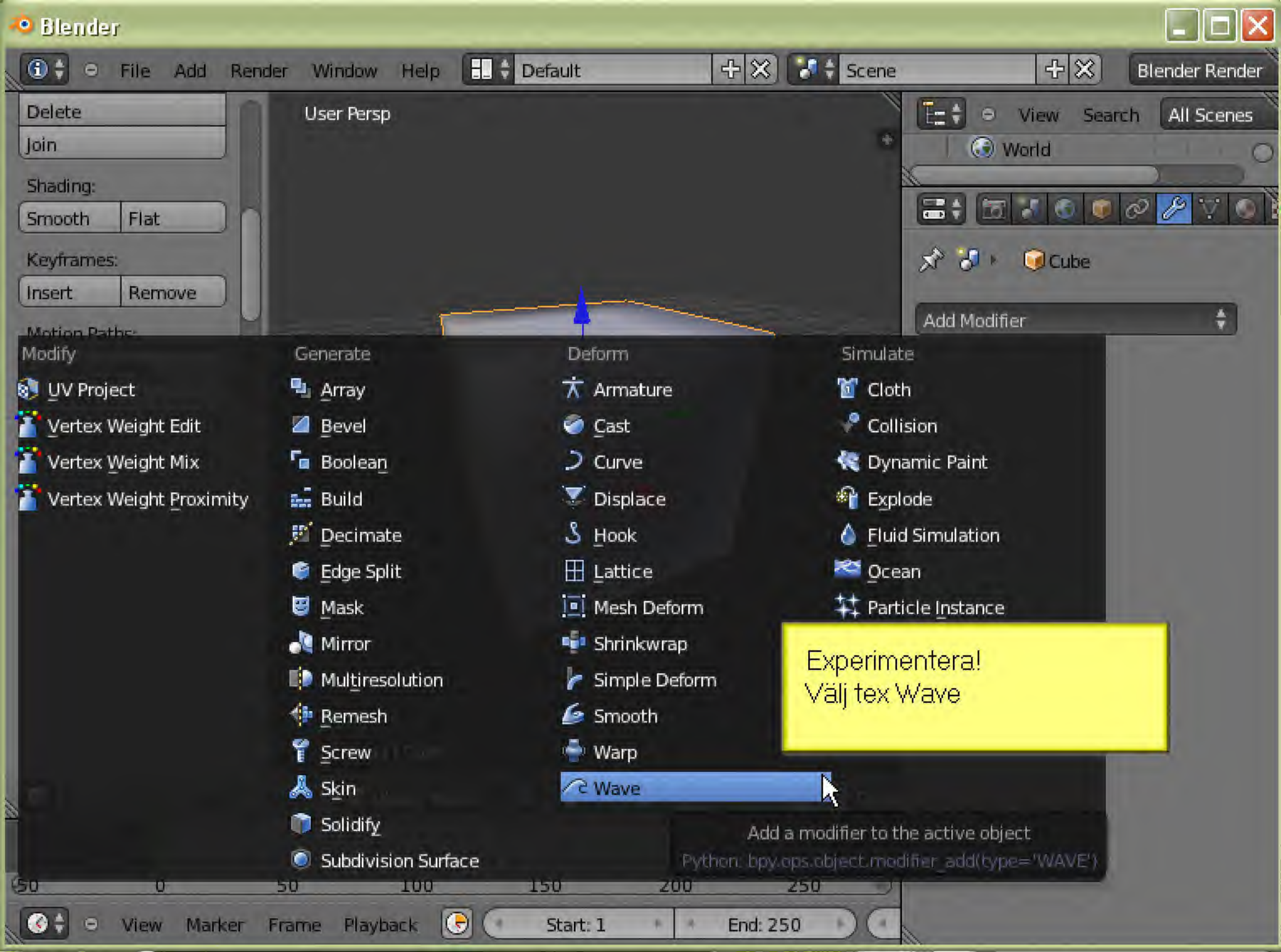
Och leta reda på knappen
Subdivide
och välj
Number of Cuts t.ex 2





Och se resultatet - kuben är inte längre lika avrundad - ju fler faces du skapade med Subdivide ju mindre rundad blir kuben.

Klicka sen fliken
Object Modifiers
för att lägga till en modifierare
genom att klicka på
Add Modifiers



Delete

Join

Shading:

Smooth Flat

Keyframes:

Insert Remove

View Search All Scenes

World

Cube

Add Modifier

Modify

- UV Project
- Vertex Weight Edit
- Vertex Weight Mix
- Vertex Weight Proximity

Generate

- Array
- Bevel
- Boolean
- Build
- Decimate
- Edge Split
- Mask
- Mirror
- Multiresolution
- Remesh
- Screw
- Skin
- Solidify
- Subdivision Surface

Deform

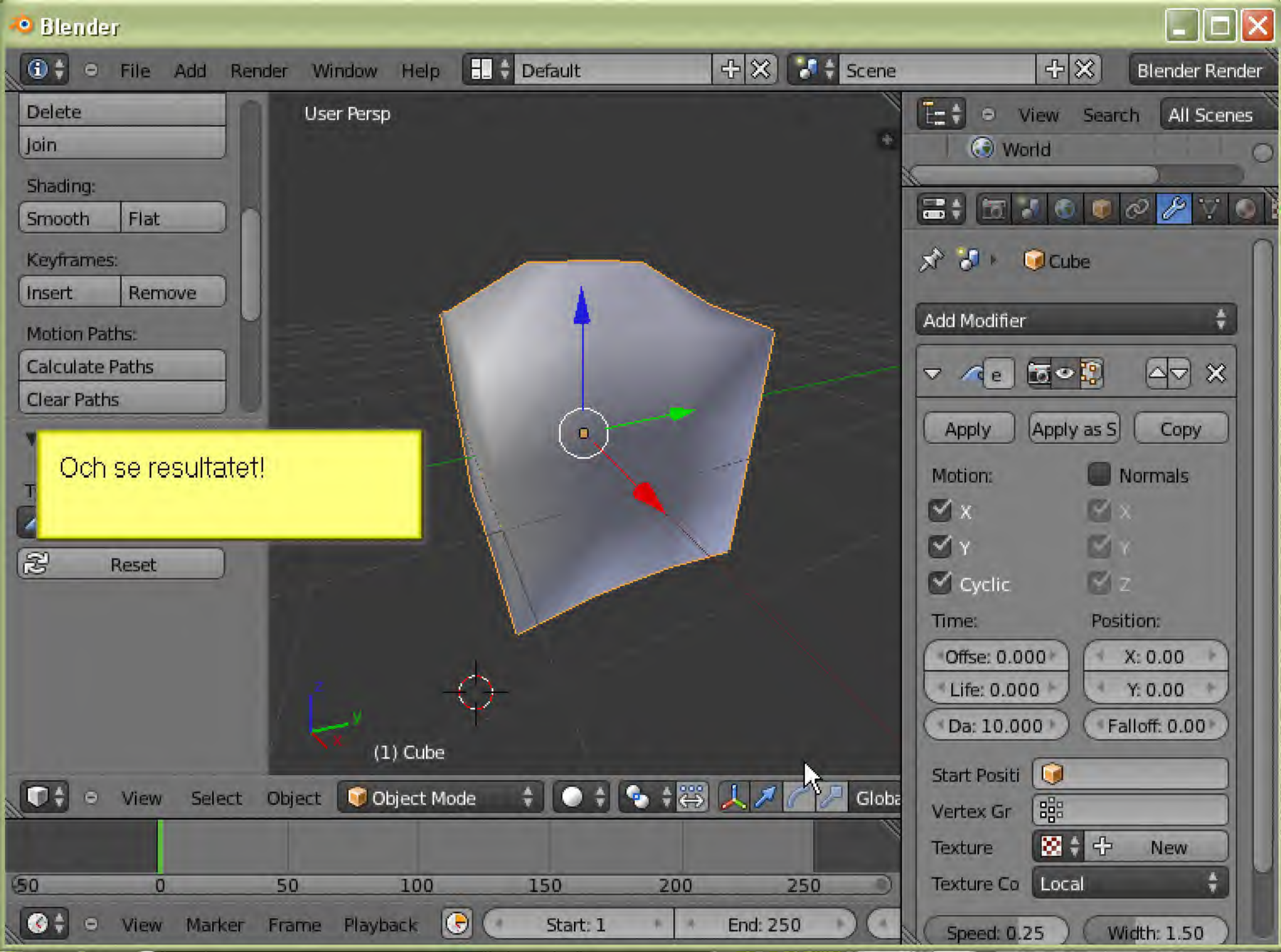
- Armature
- Cast
- Curve
- Displace
- Hook
- Lattice
- Mesh Deform
- Shrinkwrap
- Simple Deform
- Smooth
- Warp
- Wave

Simulate

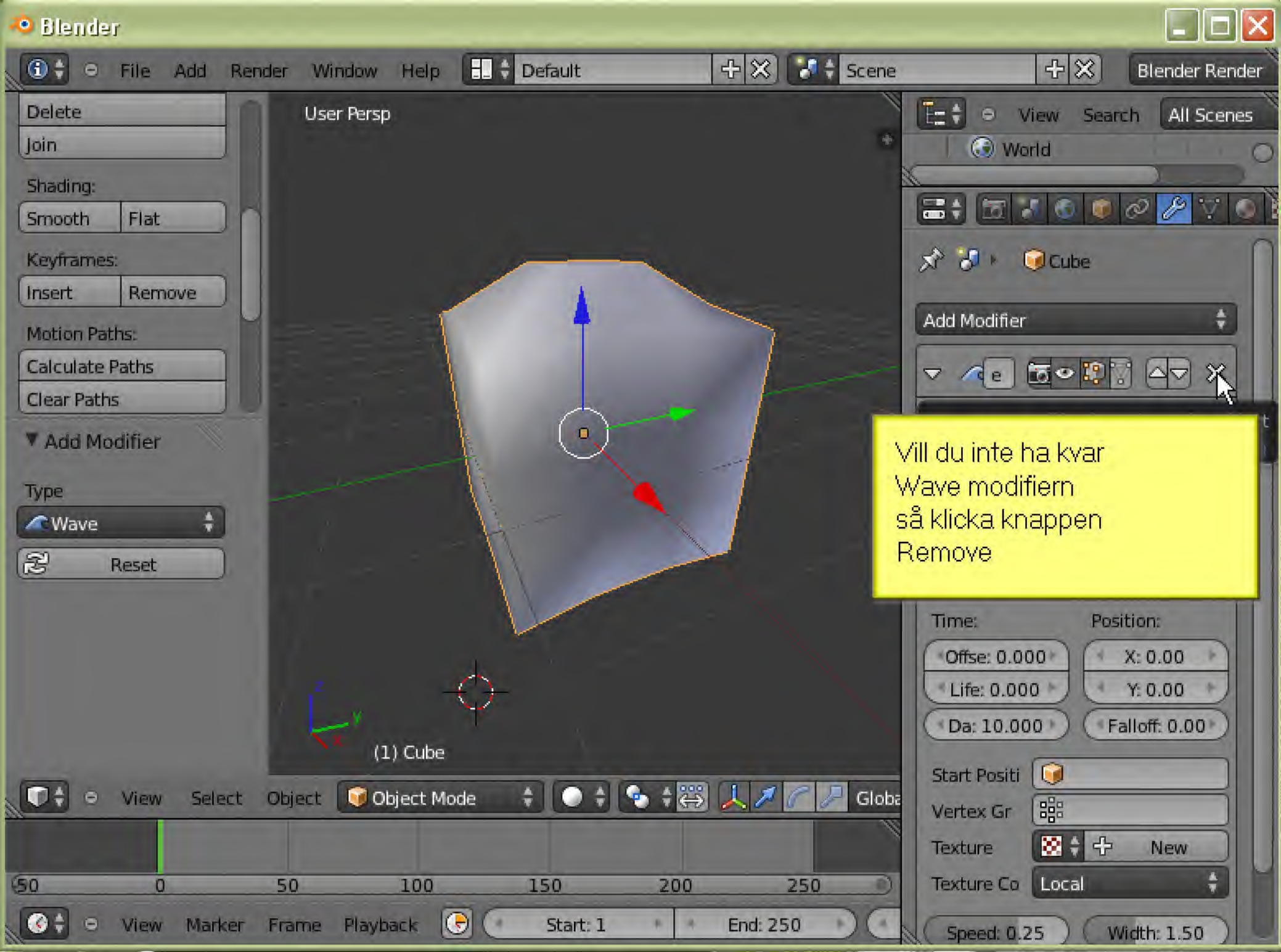
- Cloth
- Collision
- Dynamic Paint
- Explode
- Fluid Simulation
- Ocean
- Particle Instance

Experimentera!
Välj tex Wave

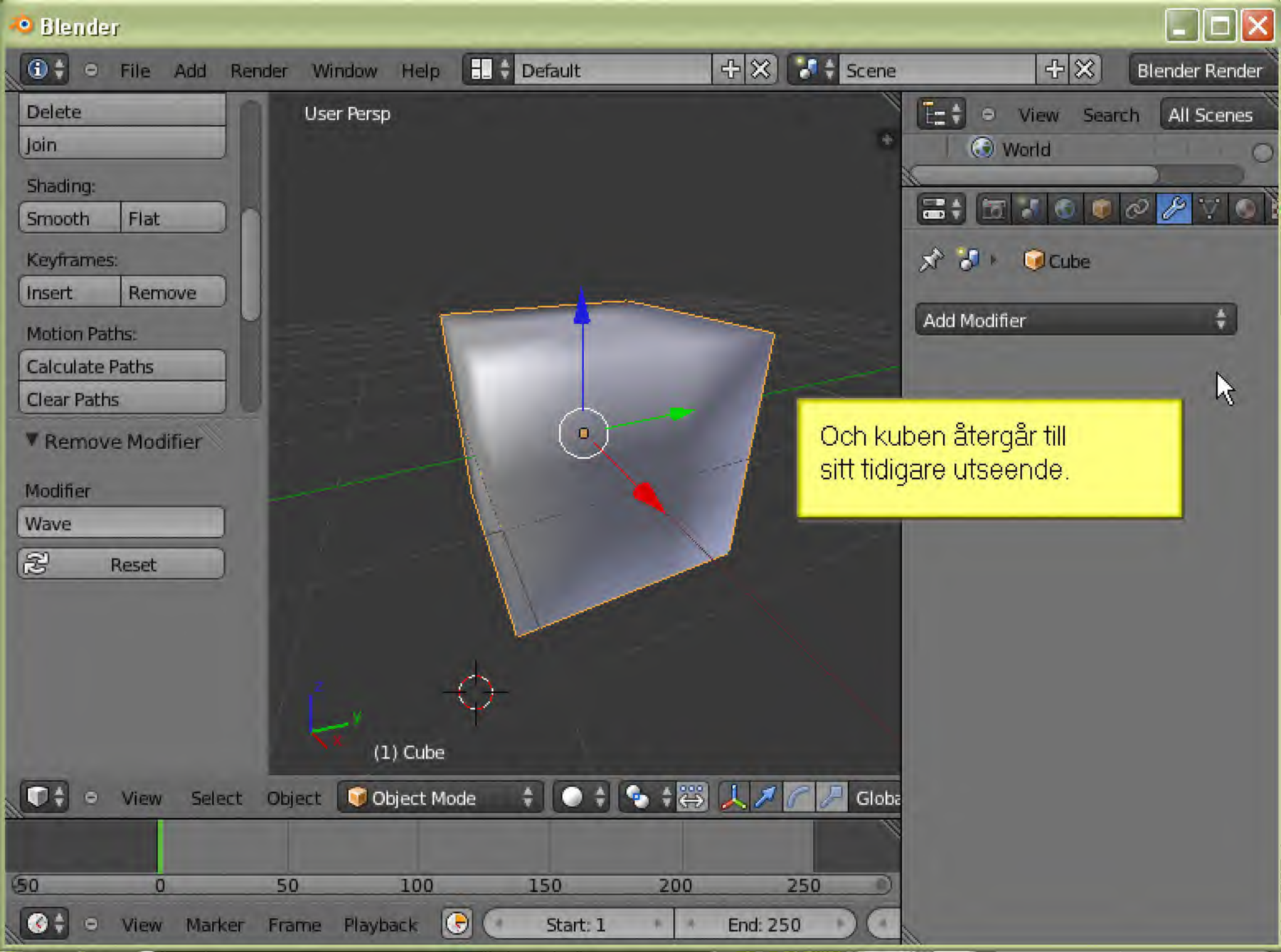
Add a modifier to the active object
Python: bpy.ops.object.modifier_add(type='WAVE')

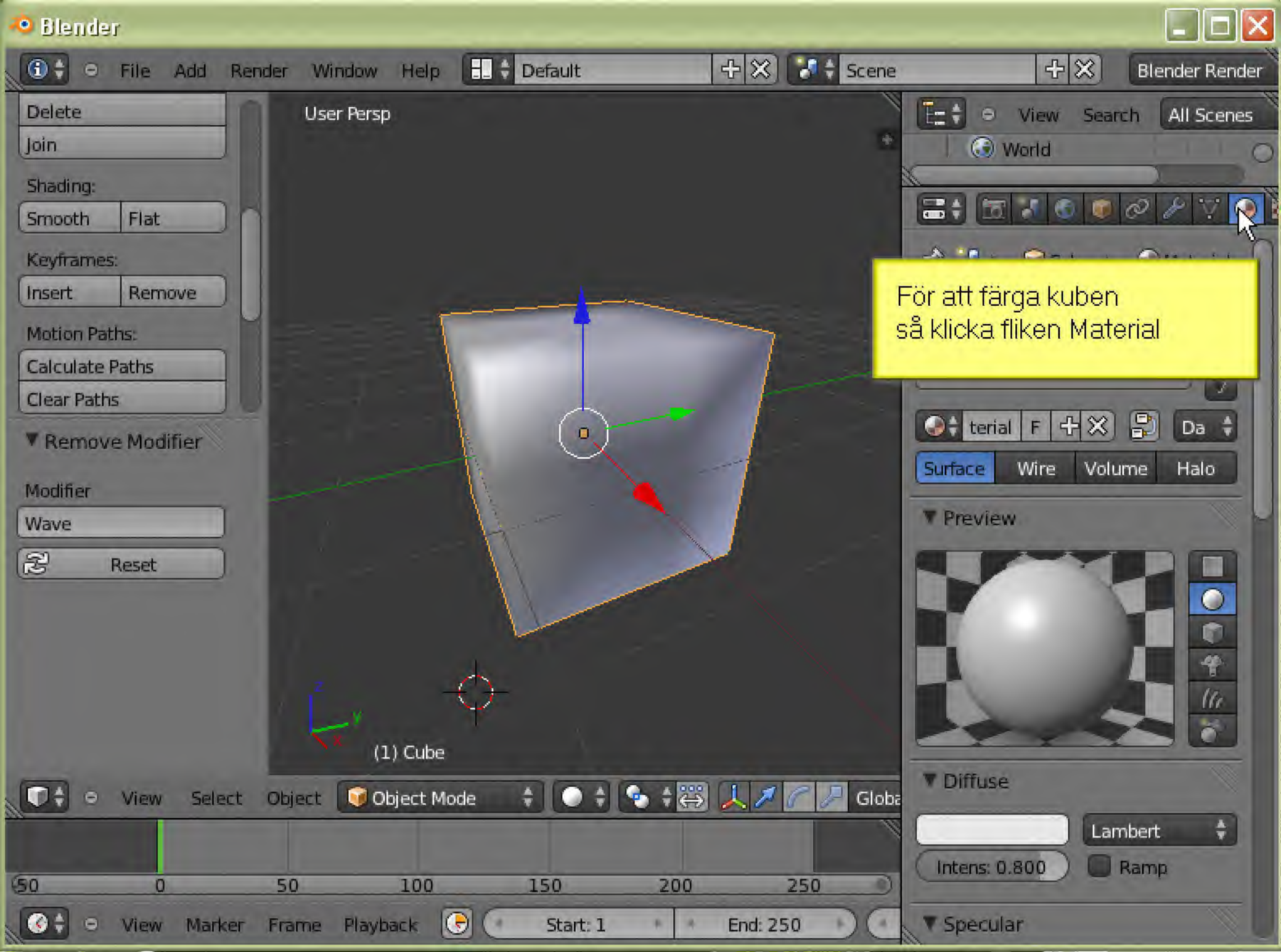


Och se resultatet!

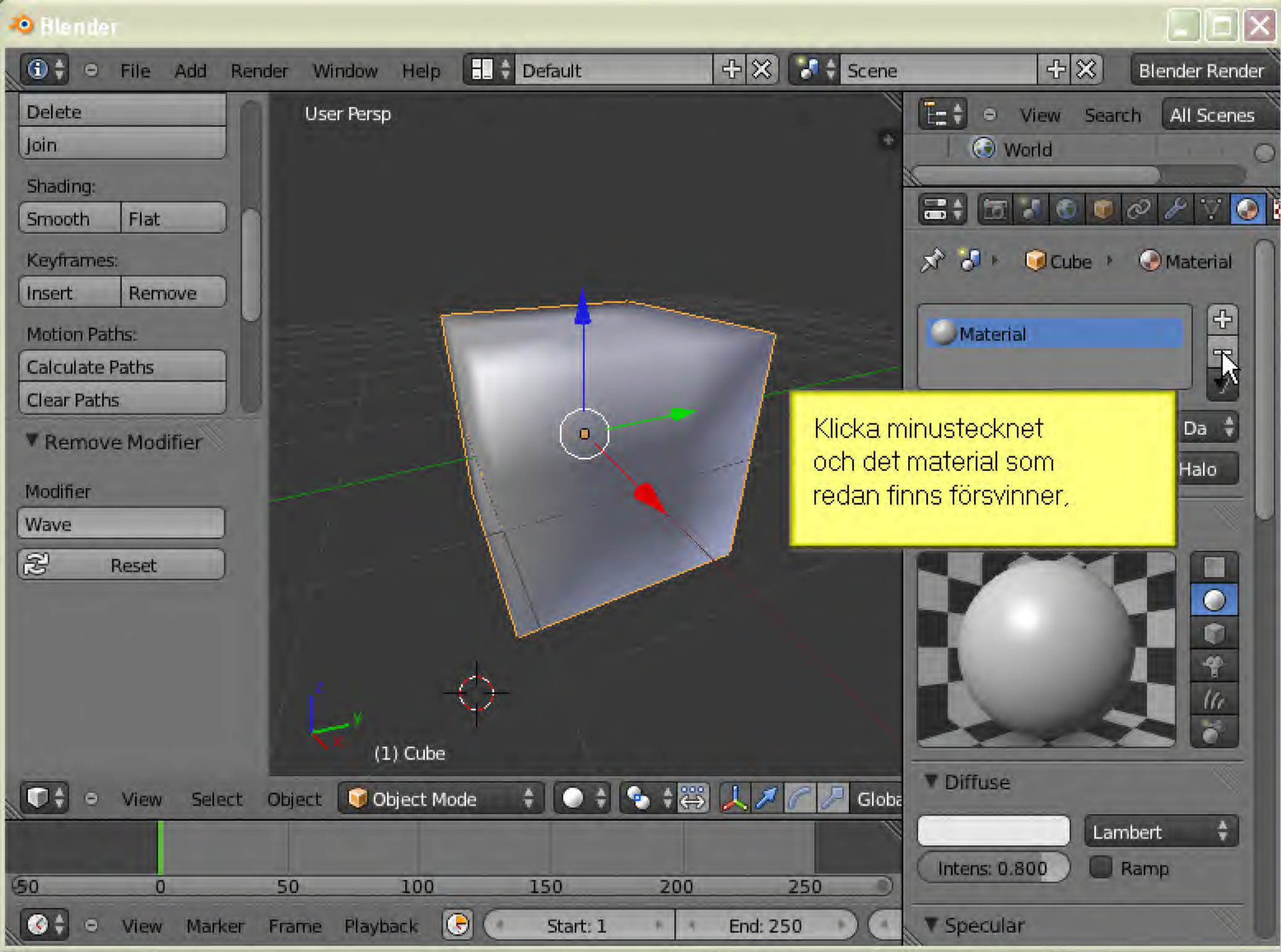


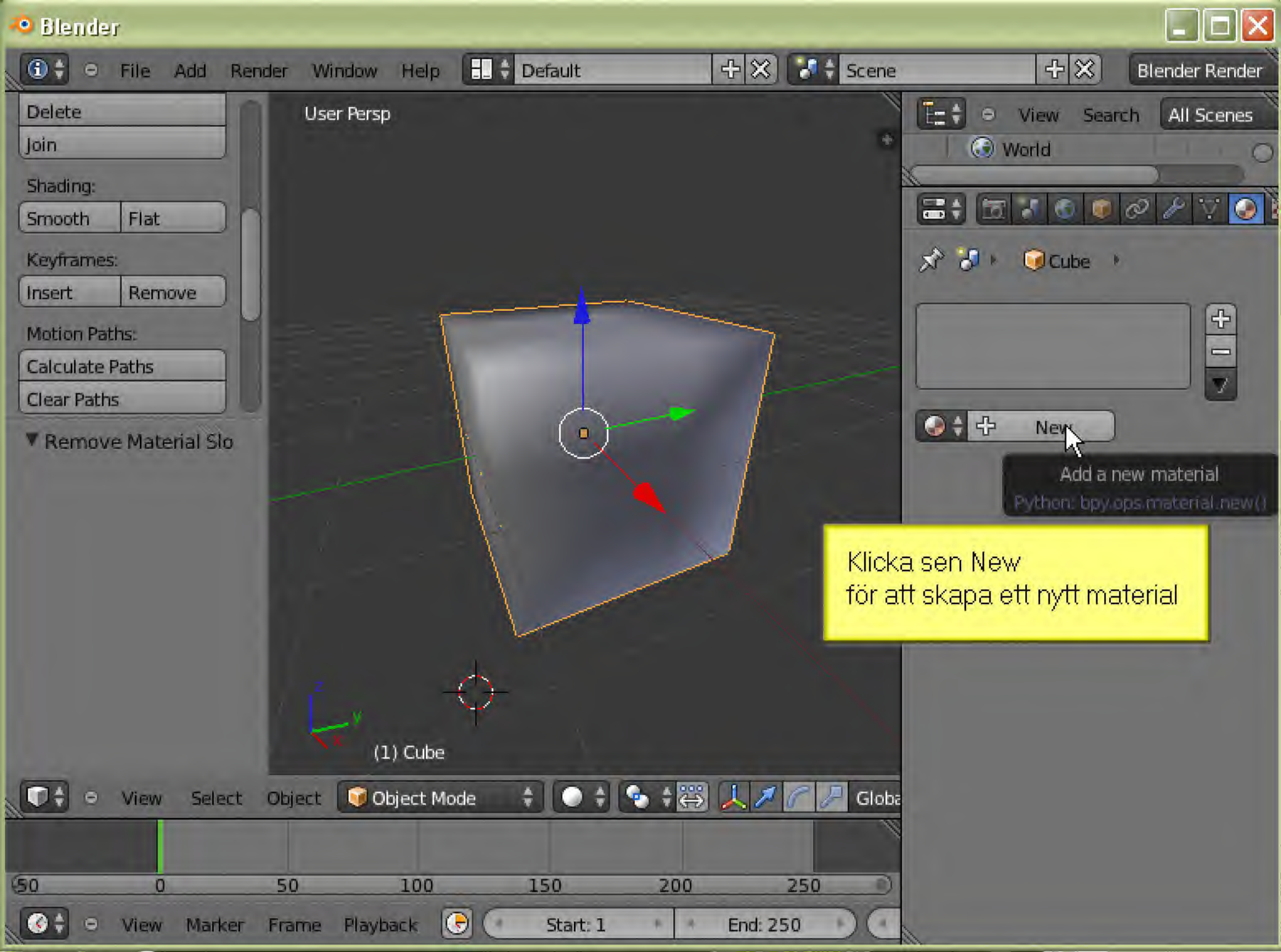
Vill du inte ha kvar
Wave modifiern
så klicka knappen
Remove



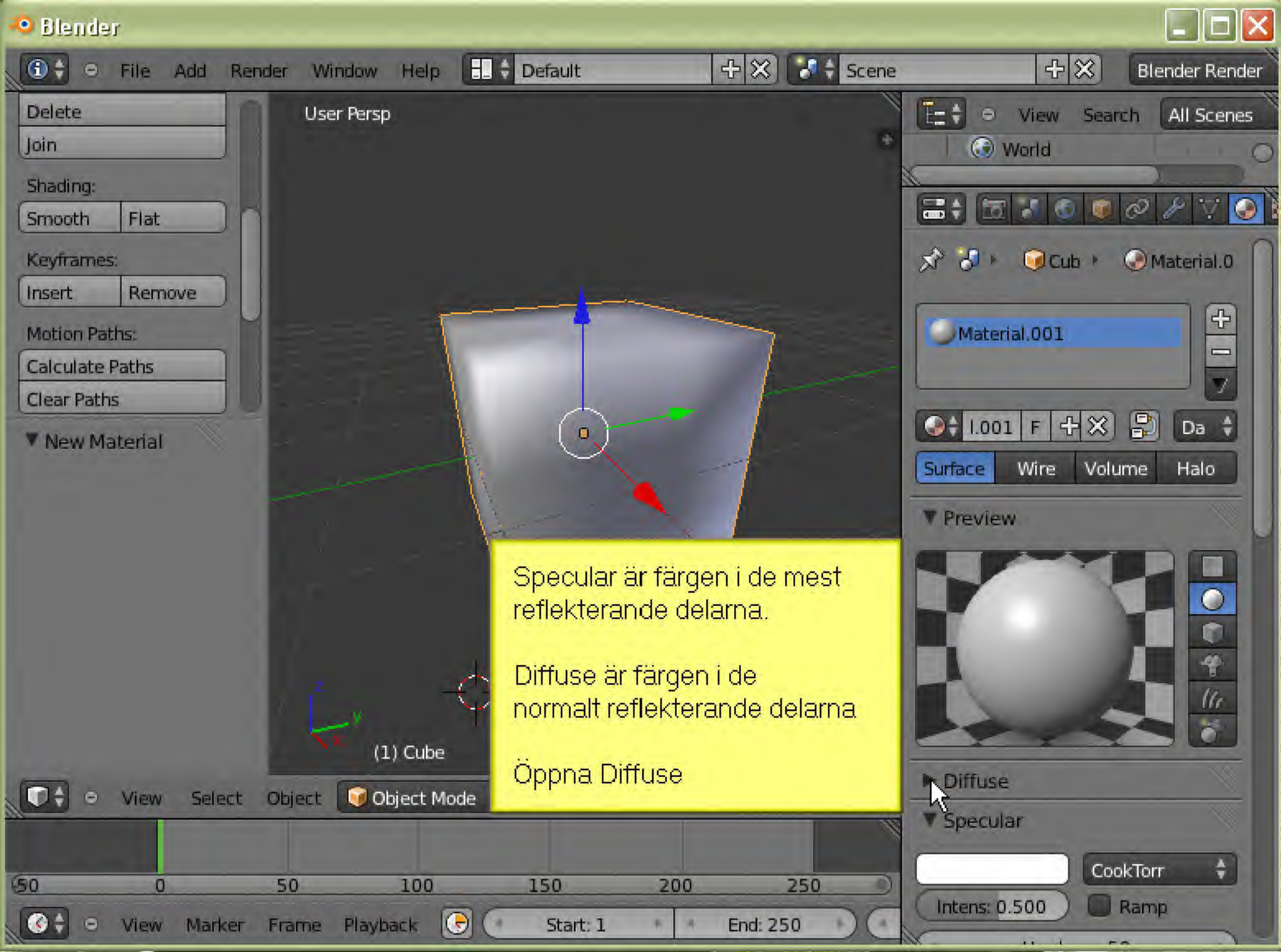


För att färga kuben
så klicka fliken Material





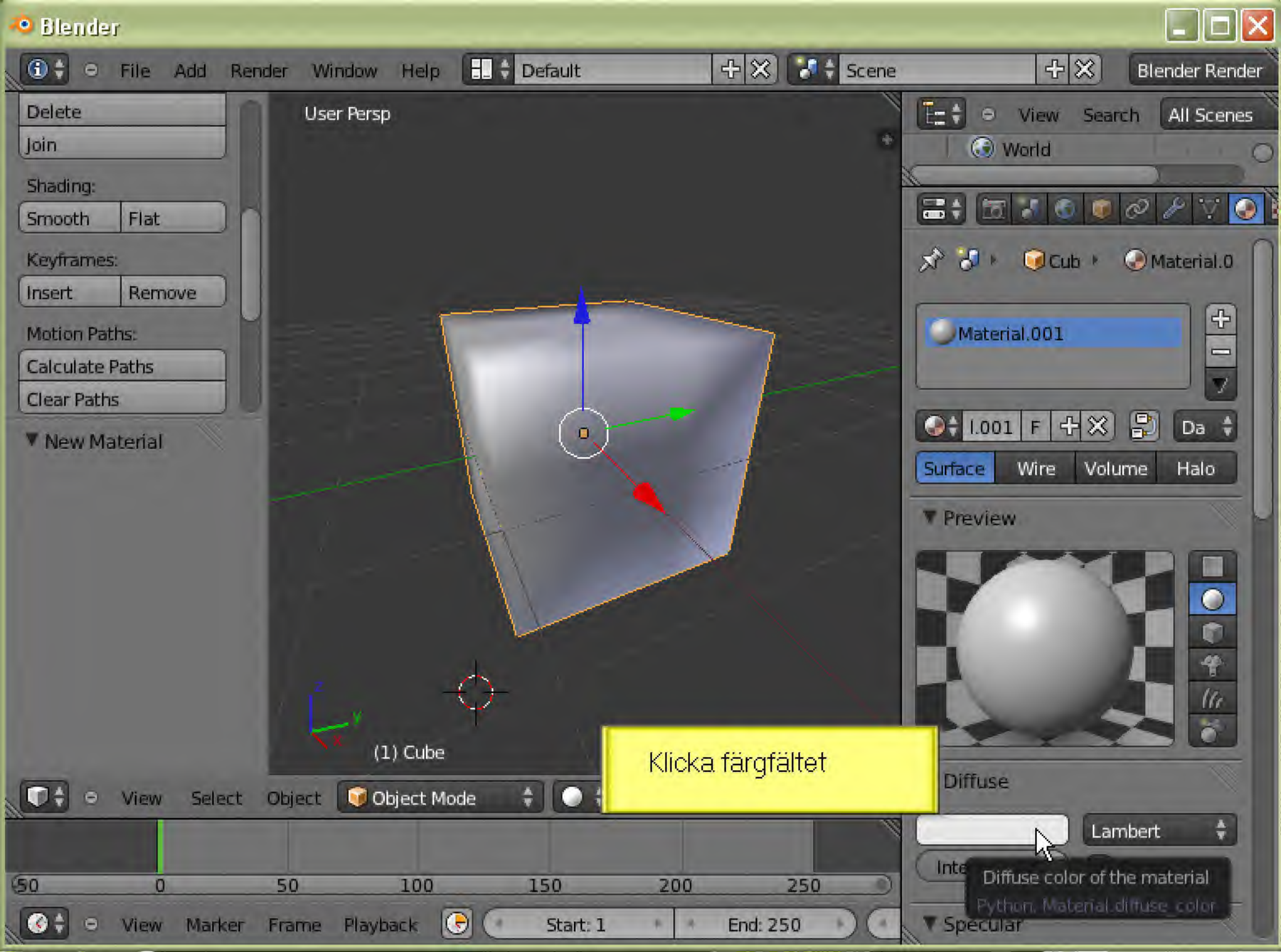
Klicka sen New
för att skapa ett nytt material



Specular är färgen i de mest reflekterande delarna.

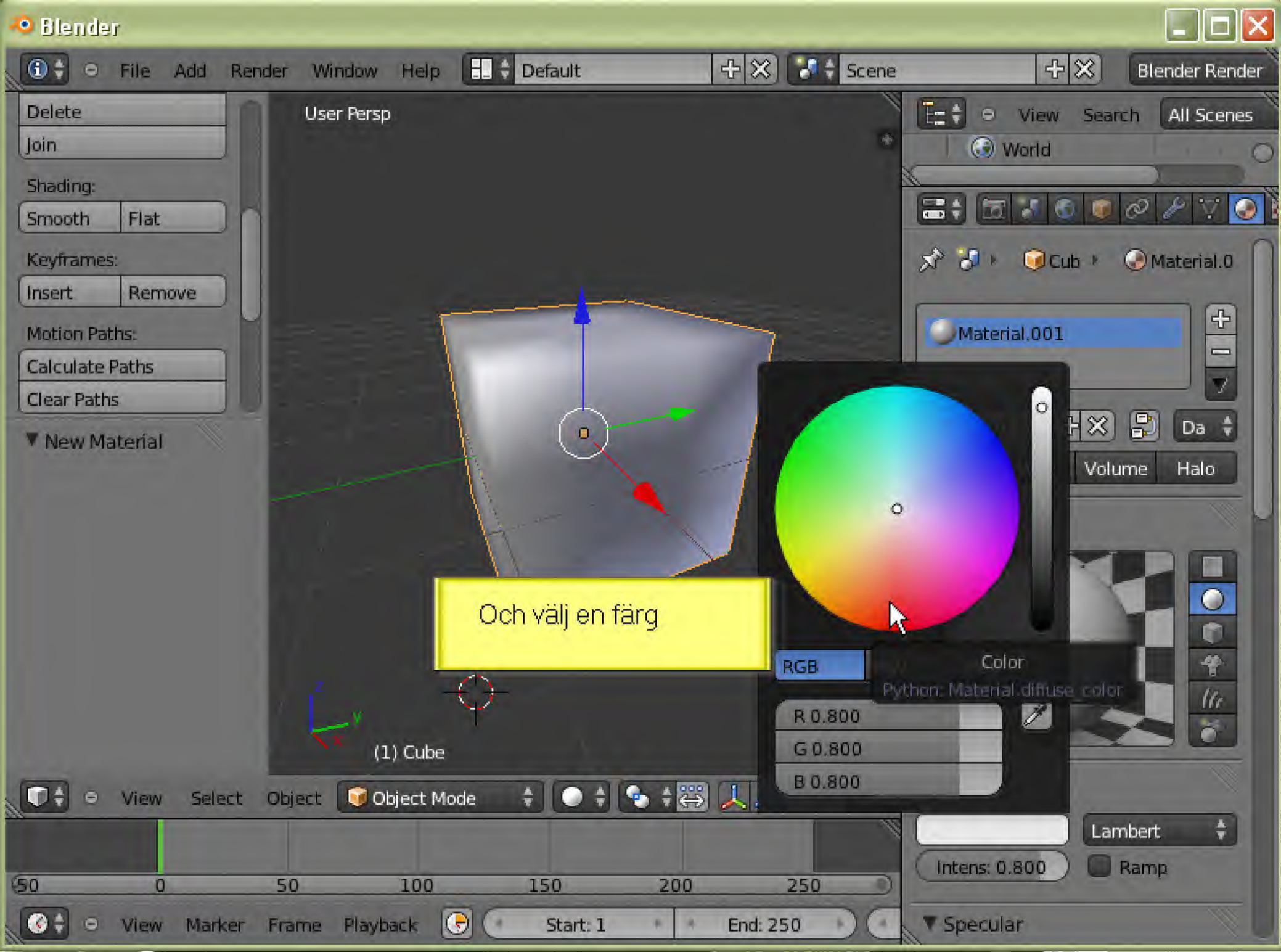
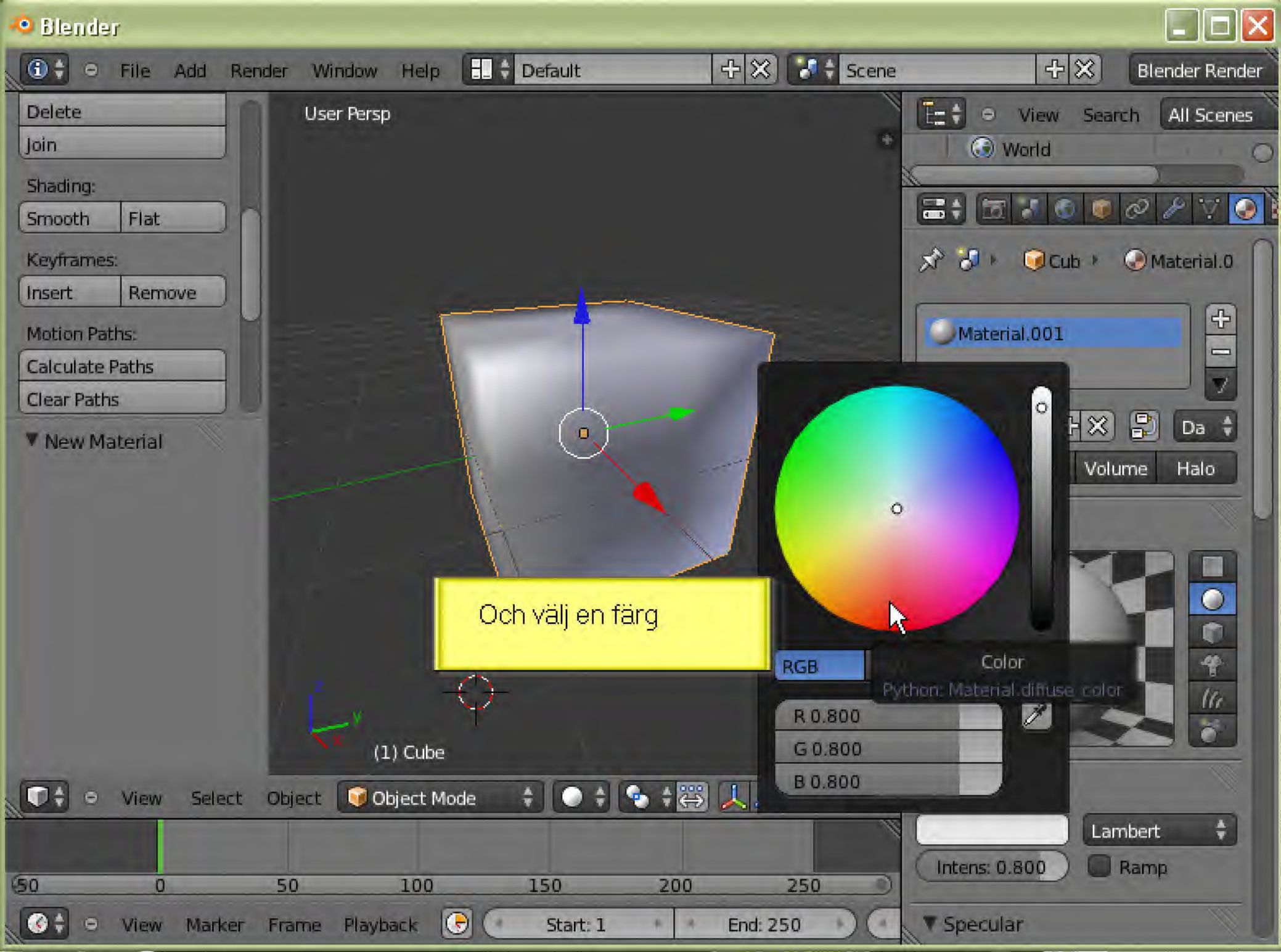
Diffuse är färgen i de normalt reflekterande delarna

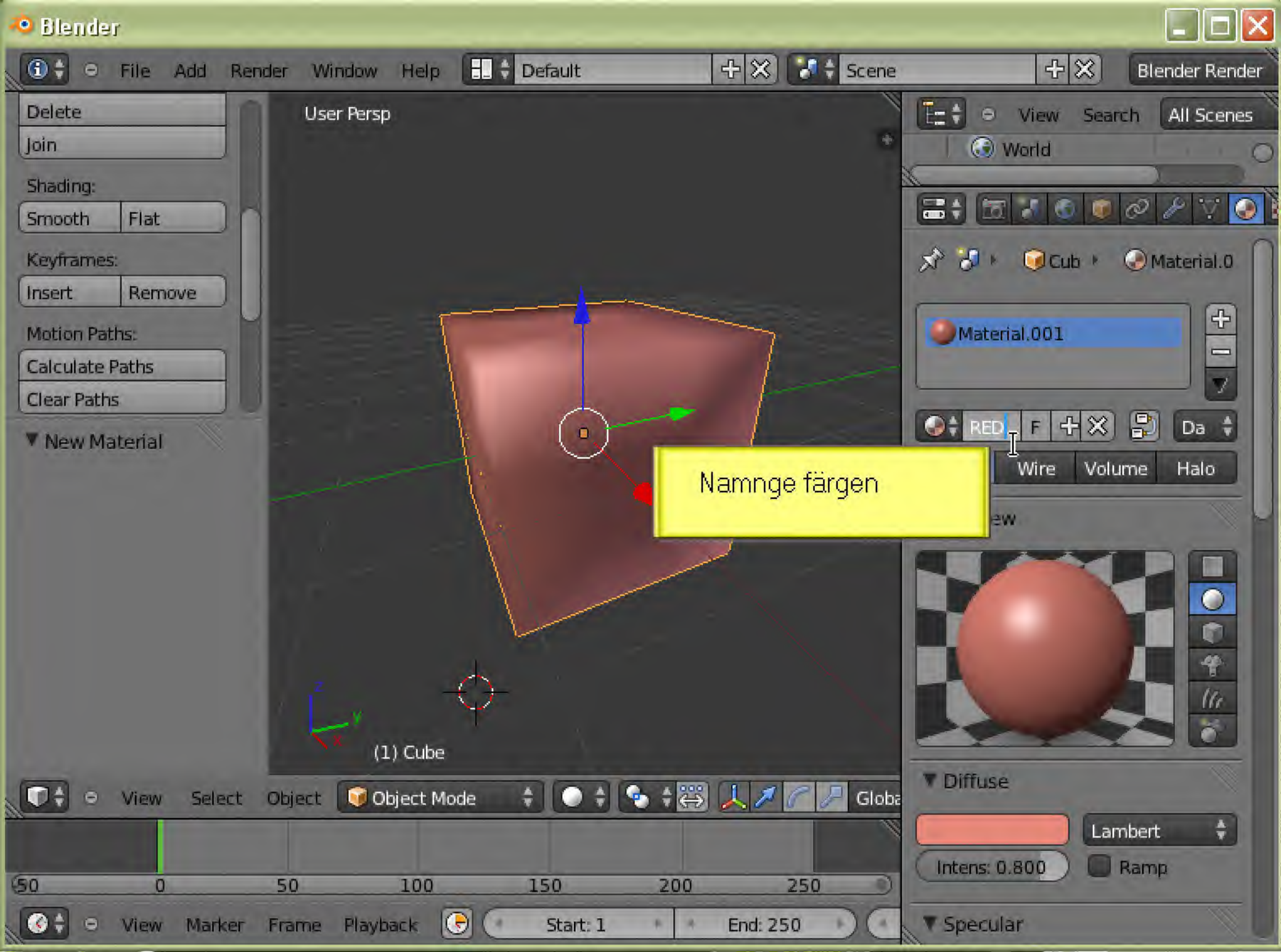
Öppna Diffuse



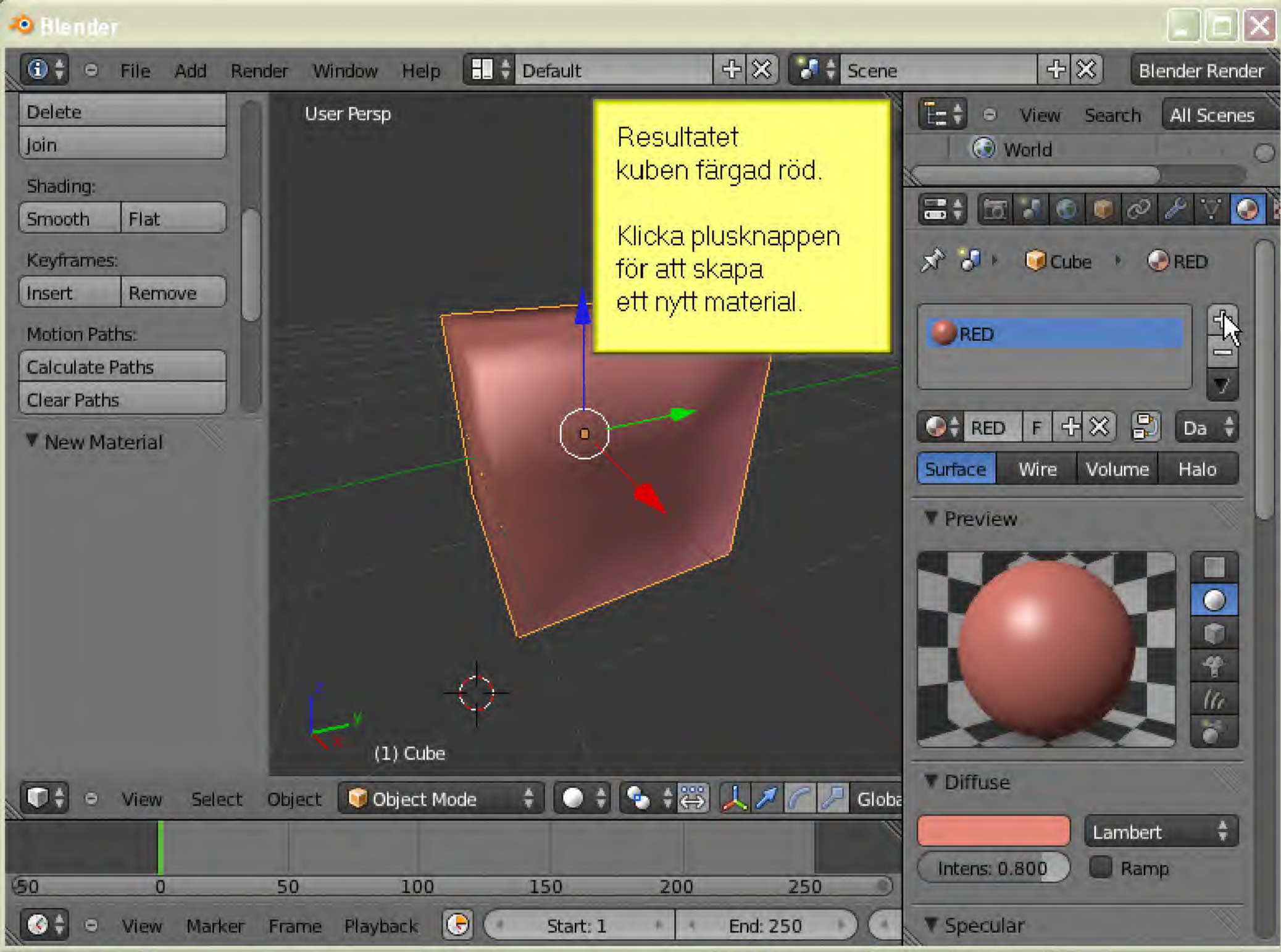
Klicka färgfältet

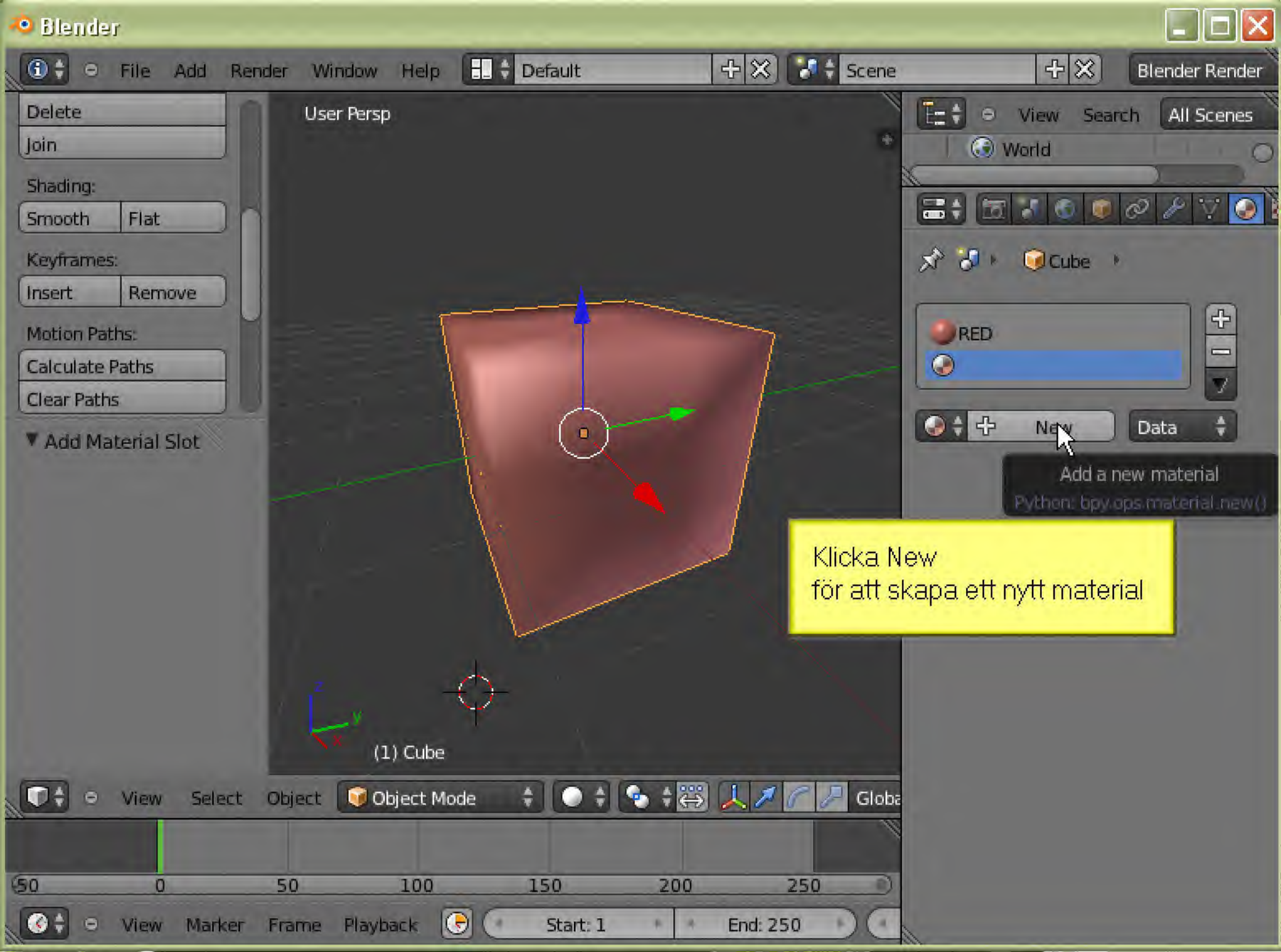
Diffuse color of the material
Python: Material.diffuse_color

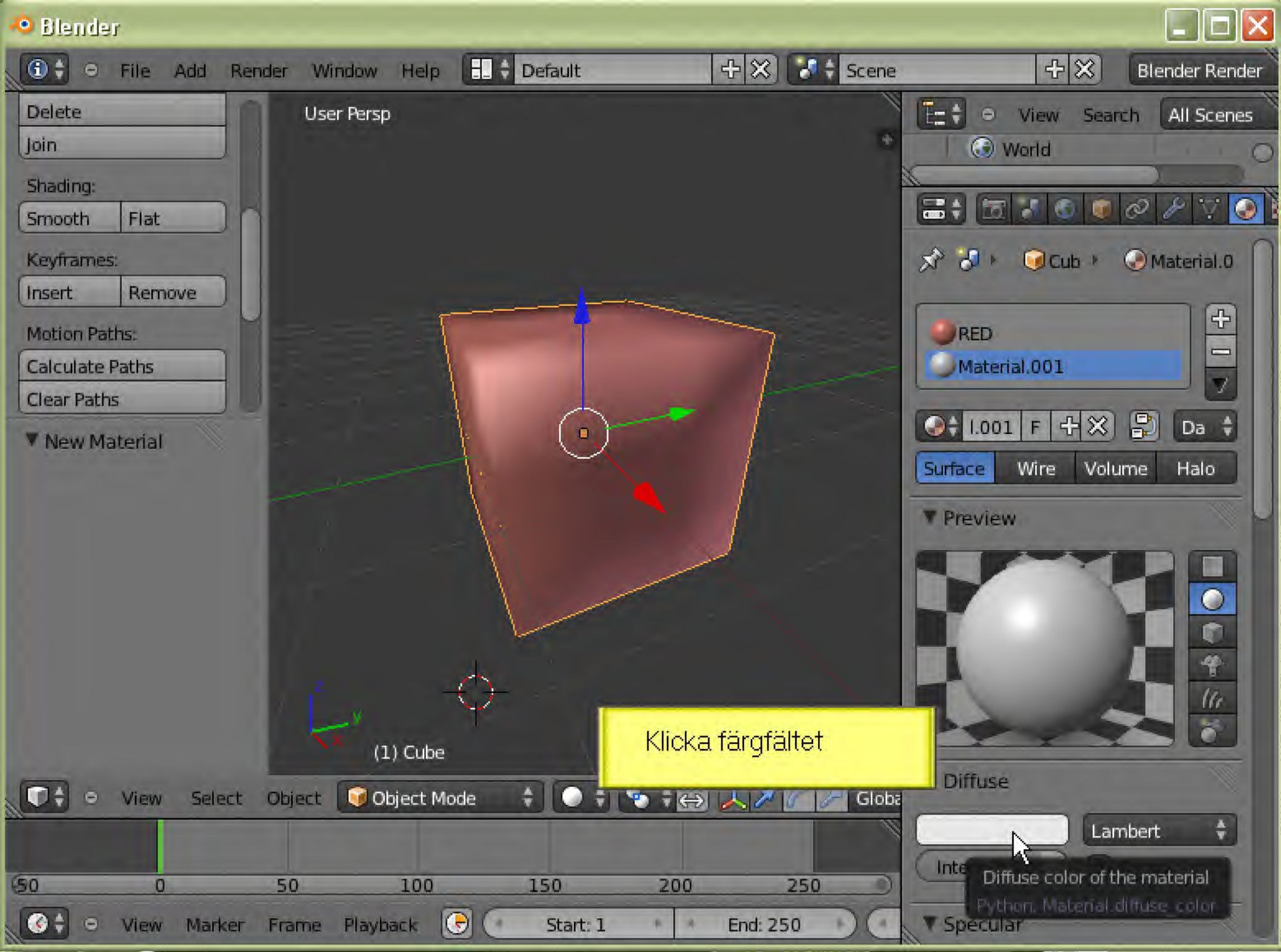




Namnge färgen







Blender

File Add Render Window Help

Default

Scene

Blender Render

Delete

Join

Shading:

Smooth

Flat

Keyframes:

Insert

Remove

Motion Paths:

Calculate Paths

Clear Paths

New Material

User Persp

View

Search

All Scenes

World

Cub

Material.0

RED

Material.001

1.001

F

+

x

Da

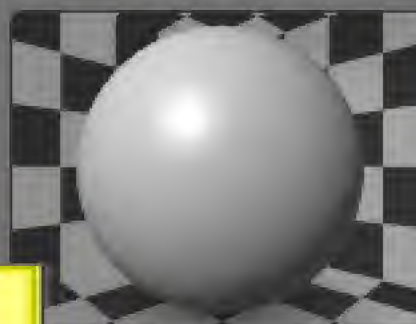
Surface

Wire

Volume

Halo

Preview



Diffuse

Lambert

Diffuse color of the material

Python: Material.diffuse_color

Specular

Klicka färgfältet

(1) Cube

View

Select

Object

Object Mode

Global

View

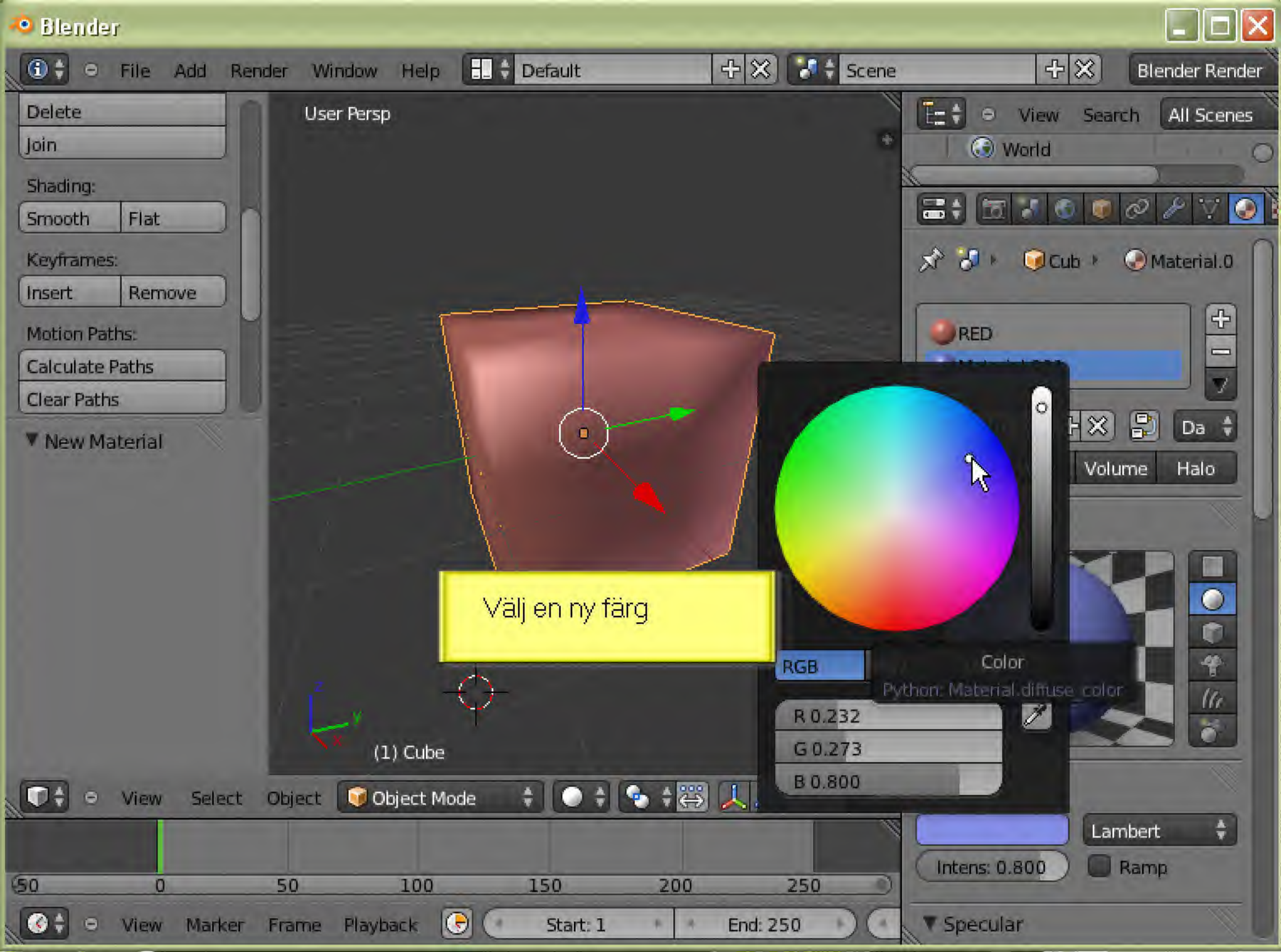
Marker

Frame

Playback

Start: 1

End: 250



Blender

File Add Render Window Help

Default

Scene

Blender Render

Delete

Join

Shading:

Smooth

Flat

Keyframes:

Insert

Remove

Motion Paths:

Calculate Paths

Clear Paths

New Material

User Persp

View

Search

All Scenes

World

Cub

Material.0

RED

Välj en ny färg

(1) Cube

RGB

Color

Python: Material.diffuse_color

R 0.232

G 0.273

B 0.800

Lambert

Intens: 0.800

Ramp

Specular

View

Select

Object

Object Mode

View

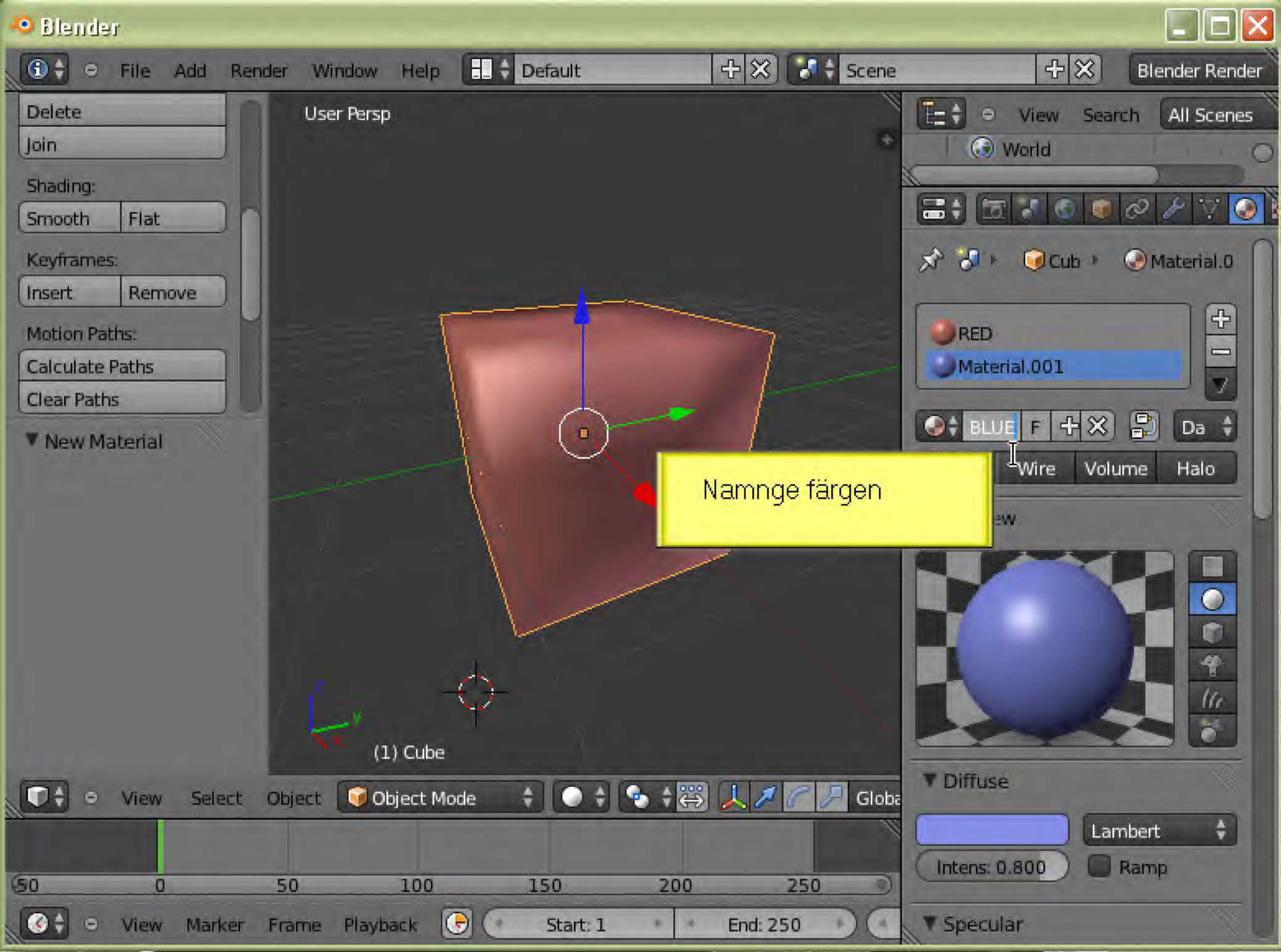
Marker

Frame

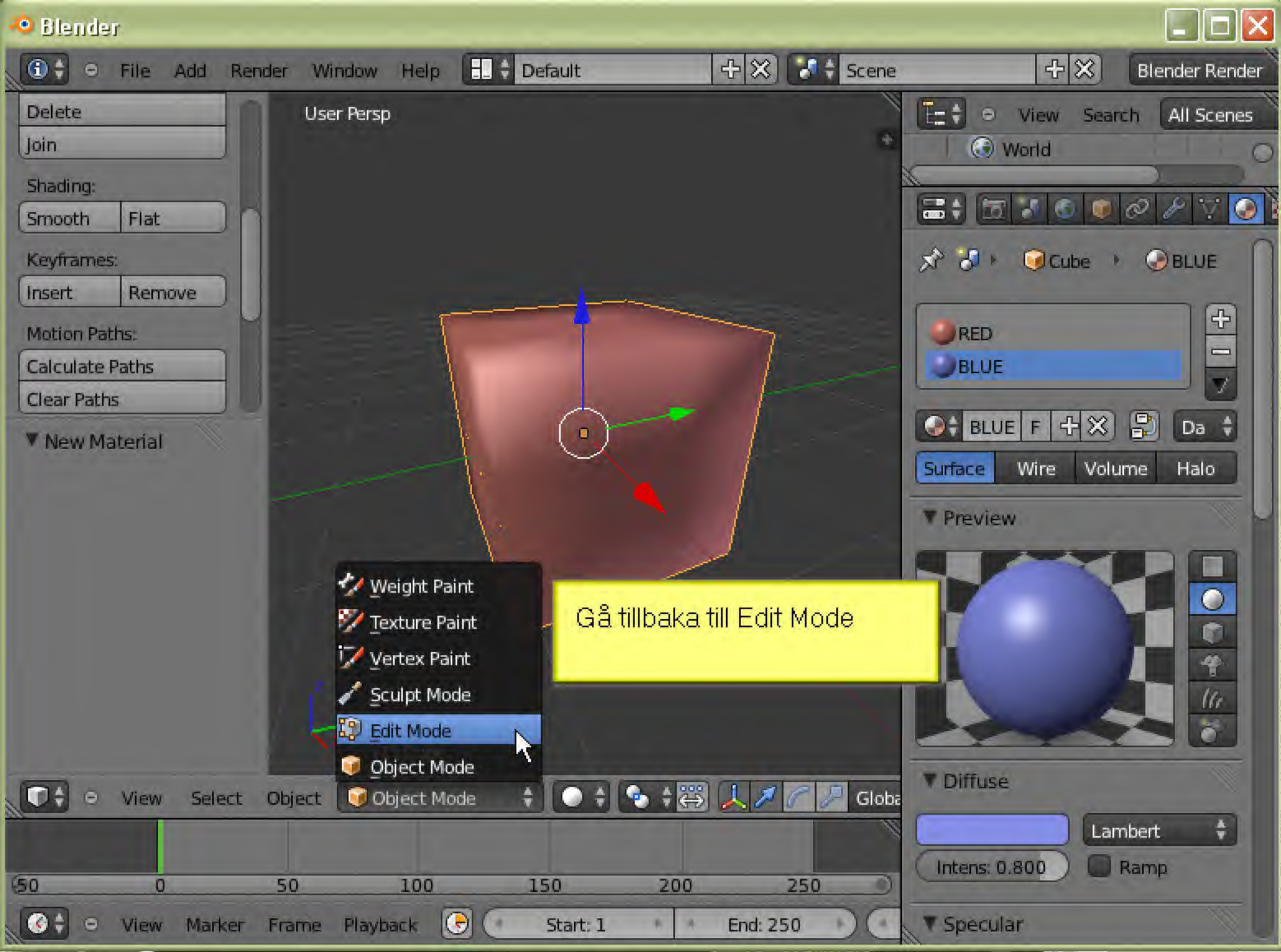
Playback

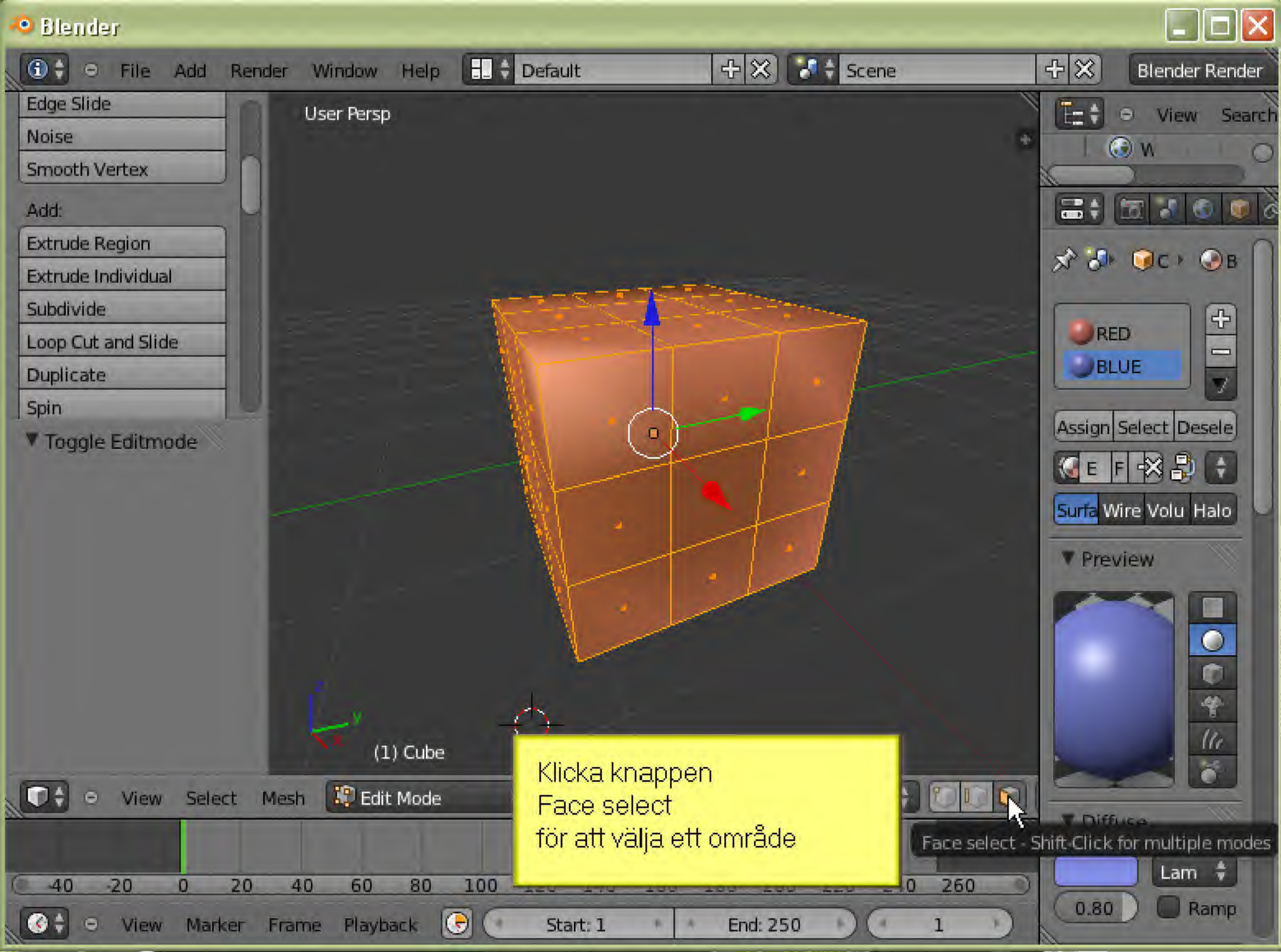
Start: 1

End: 250

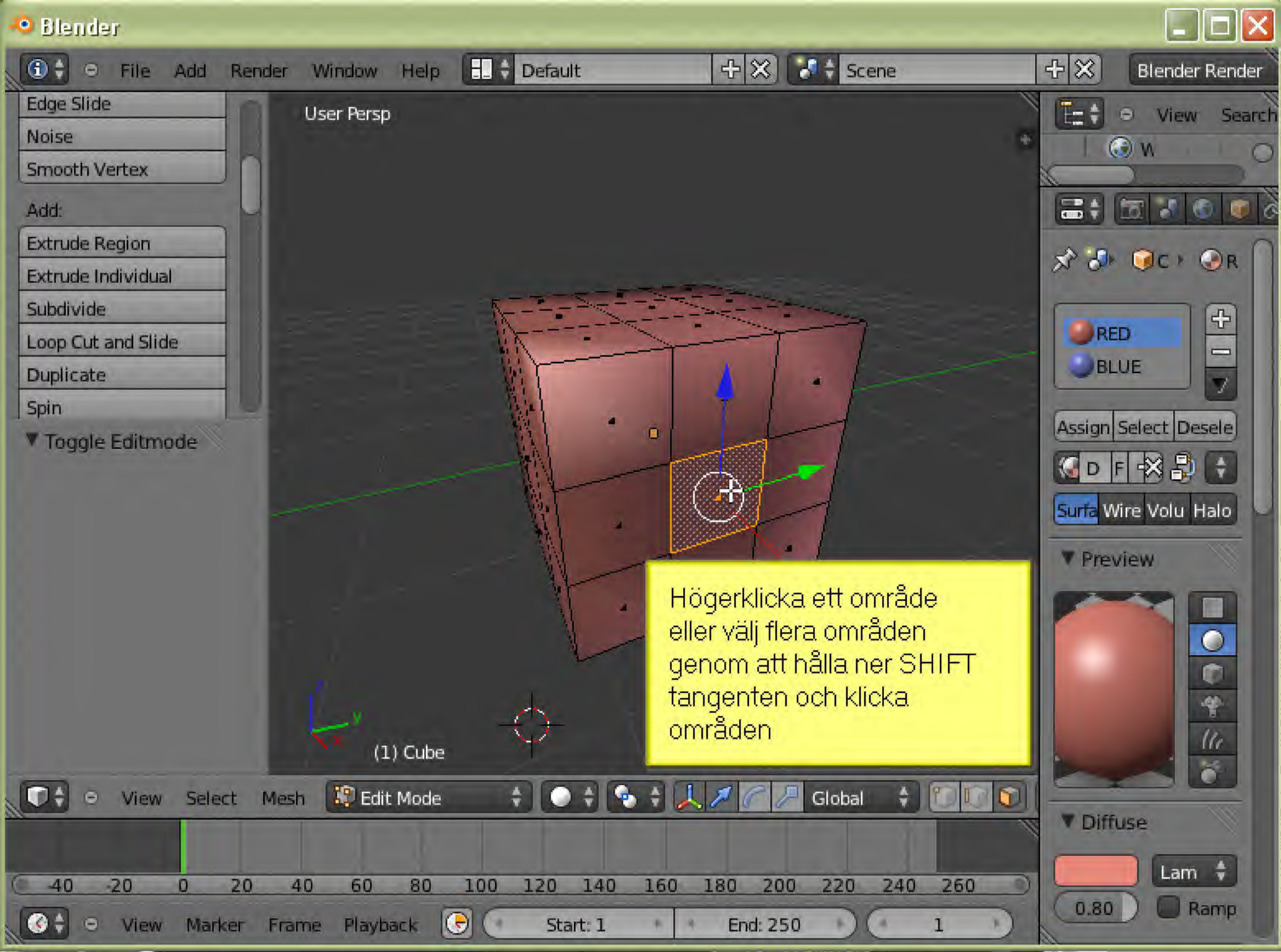


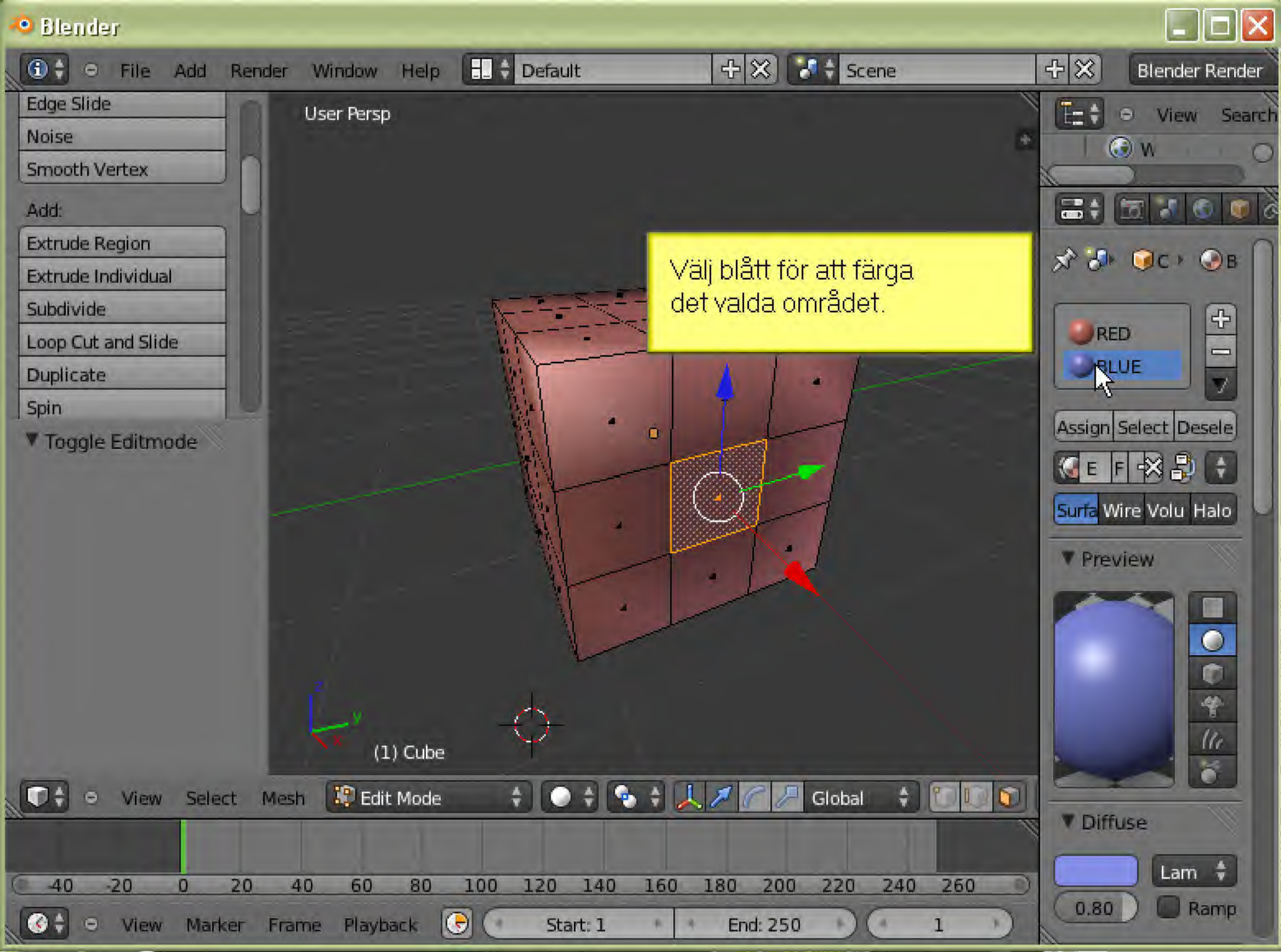
Namnge färger

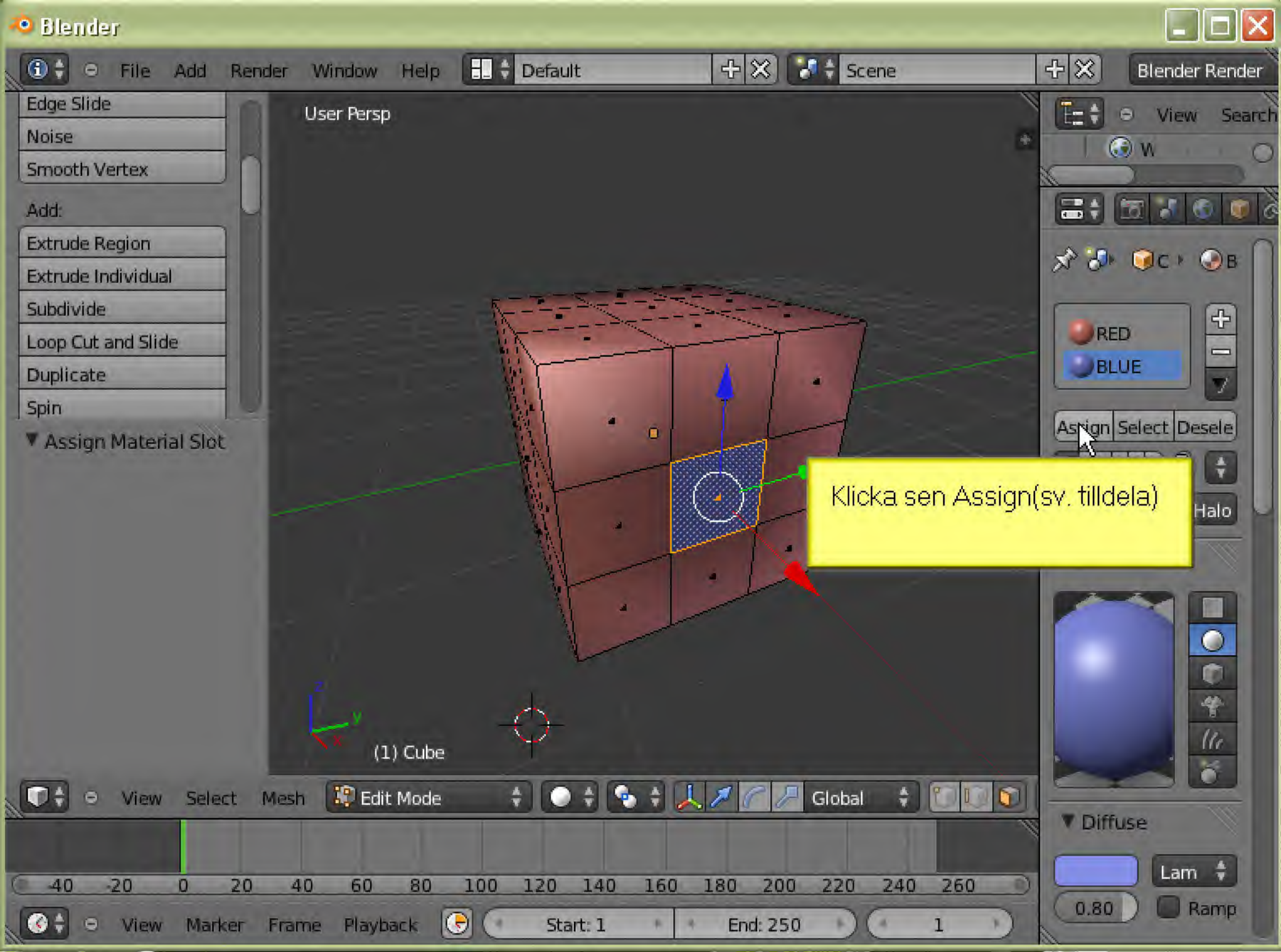




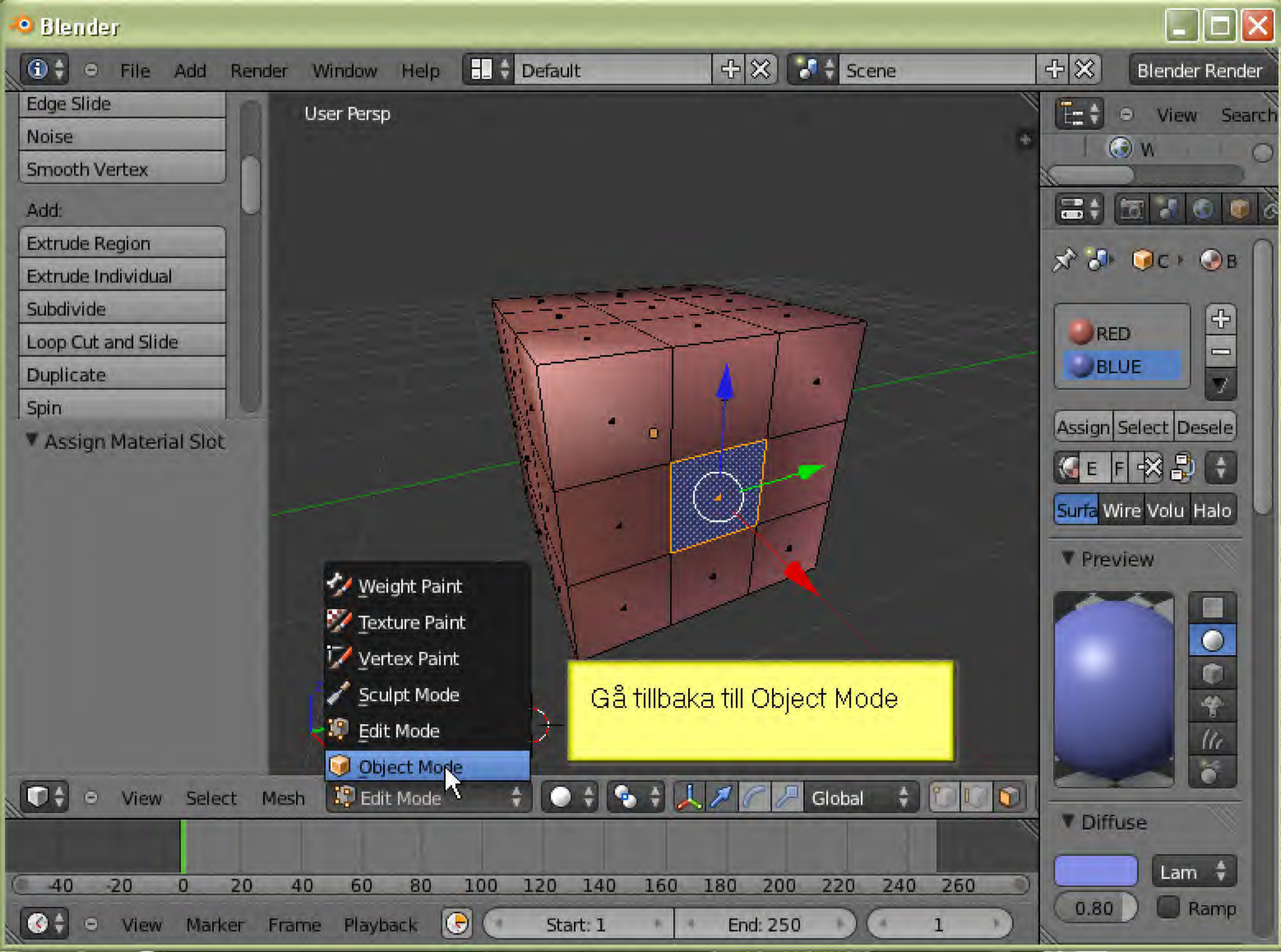
Klicka knappen
Face select
för att välja ett område

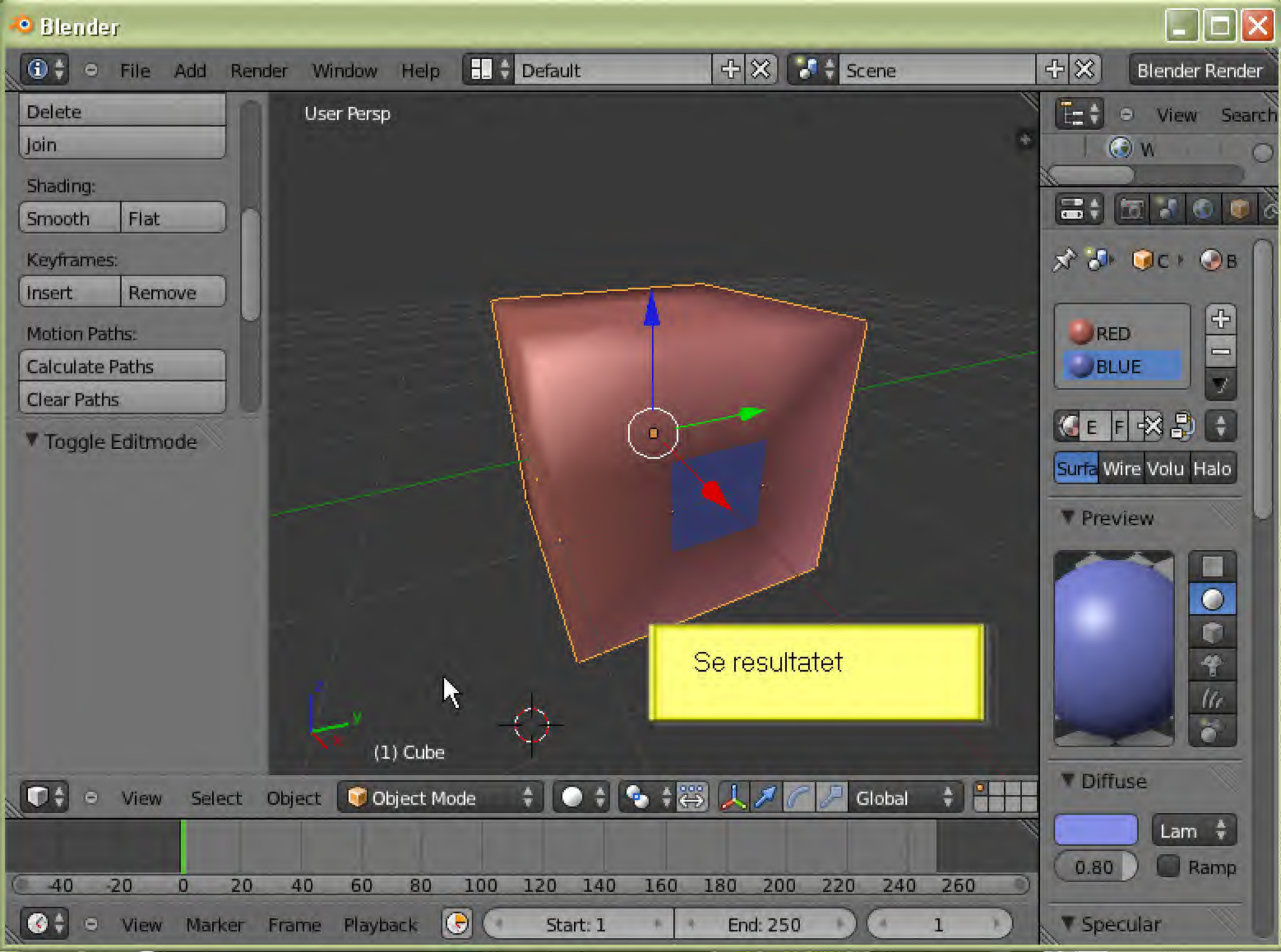






Klicka sen Assign(sy. tilldela)





Blender

File Add Render Window Help

Default

Scene

Blender Render

Delete

Join

Shading:

Smooth

Flat

Keyframes:

Insert

Remove

Motion Paths:

Calculate Paths

Clear Paths

▼ Toggle Editmode

User Persp

Se rezultatet

(1) Cube

View

Select

Object

Object Mode

Global

-40 -20 0 20 40 60 80 100 120 140 160 180 200 220 240 260

View

Marker

Frame

Playback

Start: 1

End: 250

1

View

Search

W

C

B

RED

BLUE

E

F

Surfa Wire Volu Halo

▼ Preview



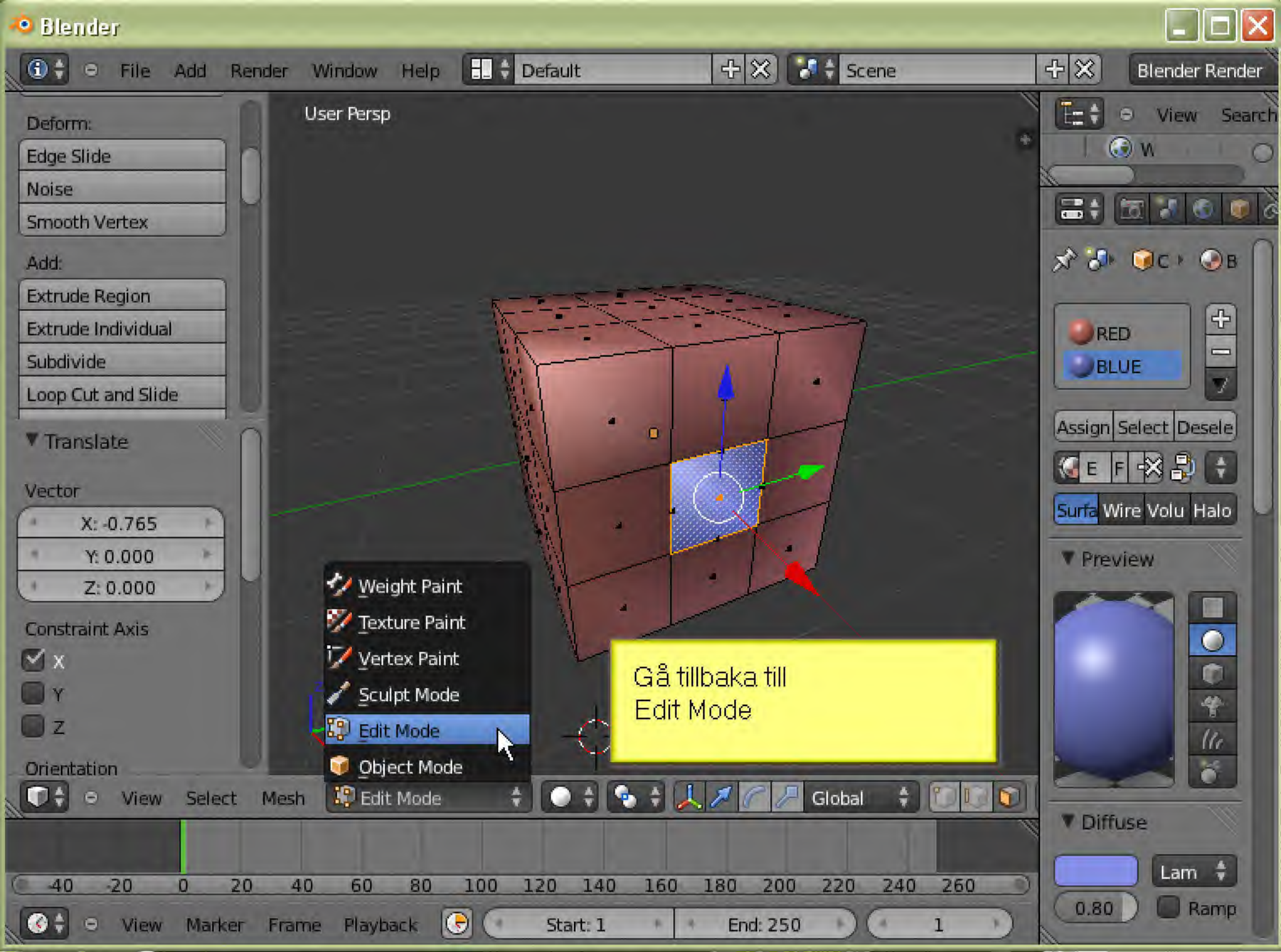
▼ Diffuse

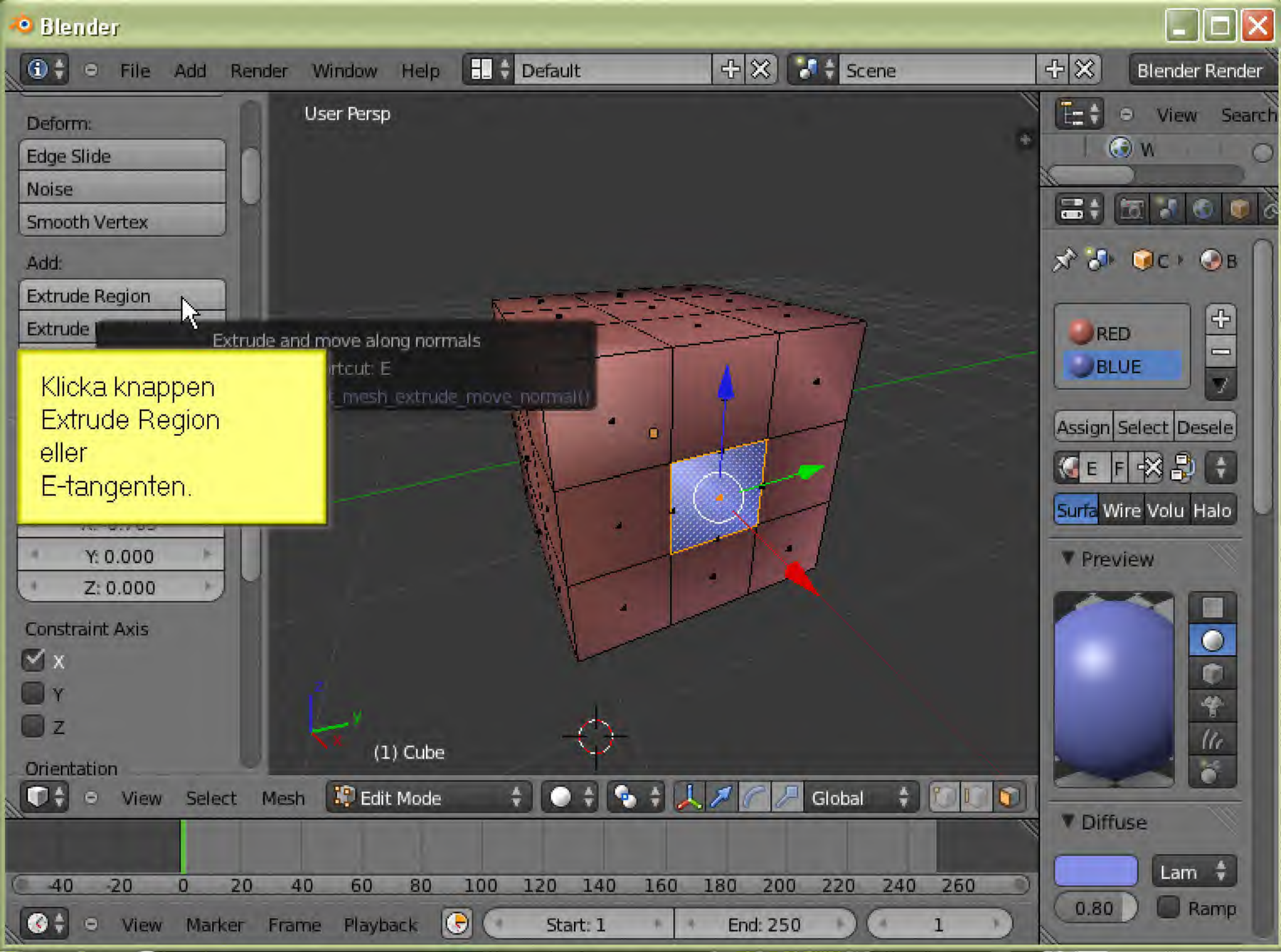
0.80

Lam

Ramp

▼ Specular





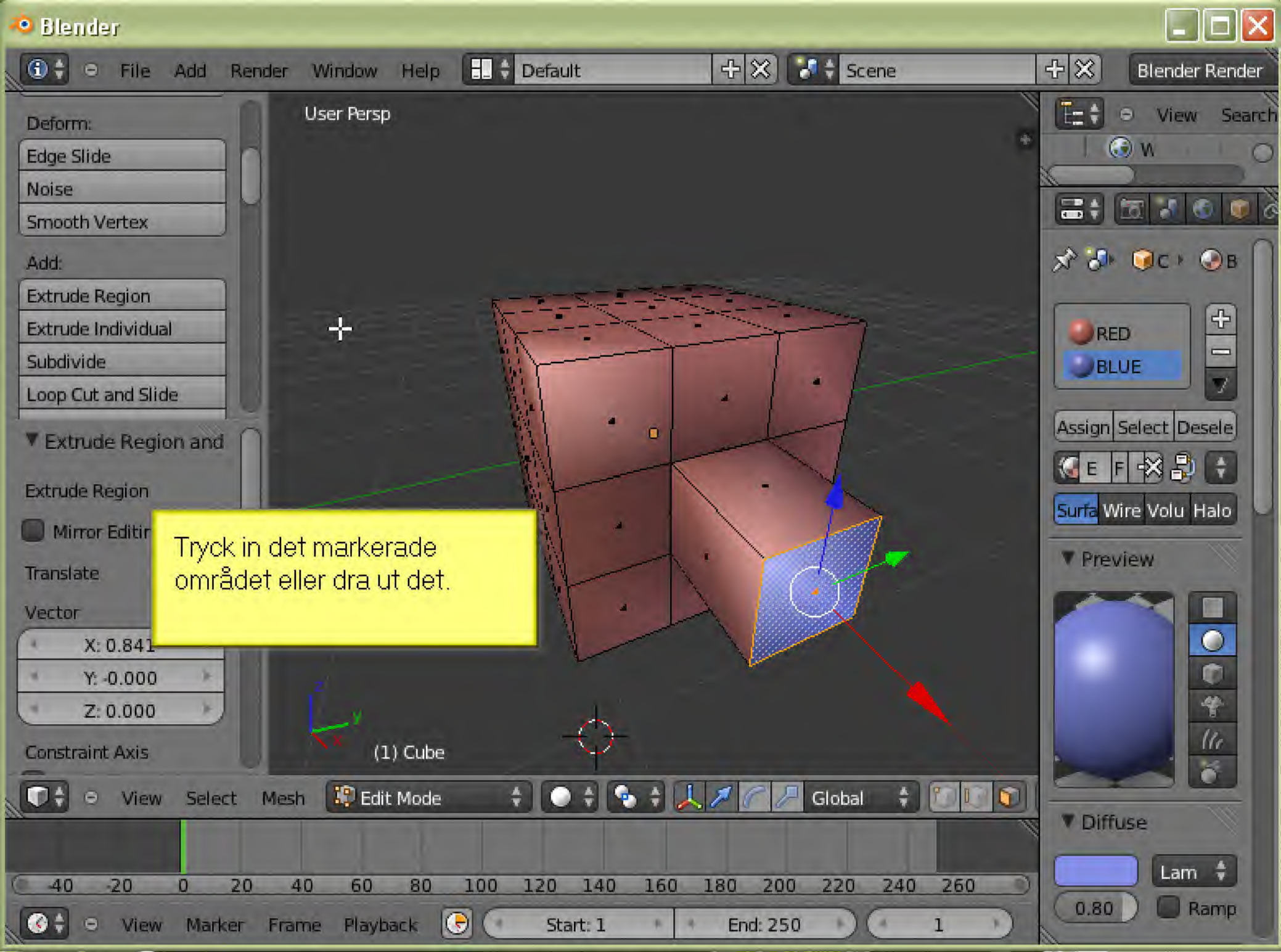
Klicka knappen
Extrude Region
eller
E-tangenten.

Extrude and move along normals

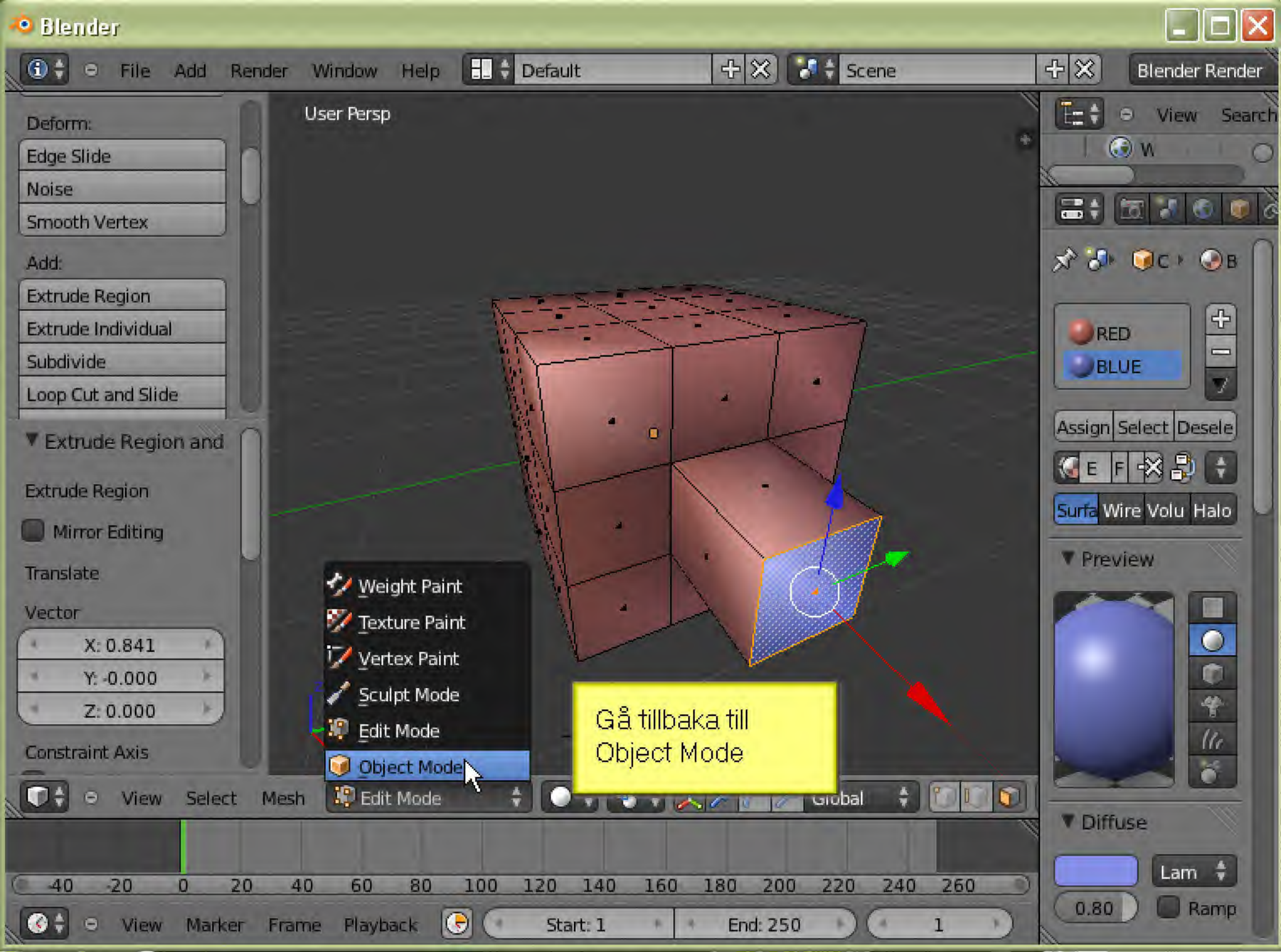
Shortcut: E

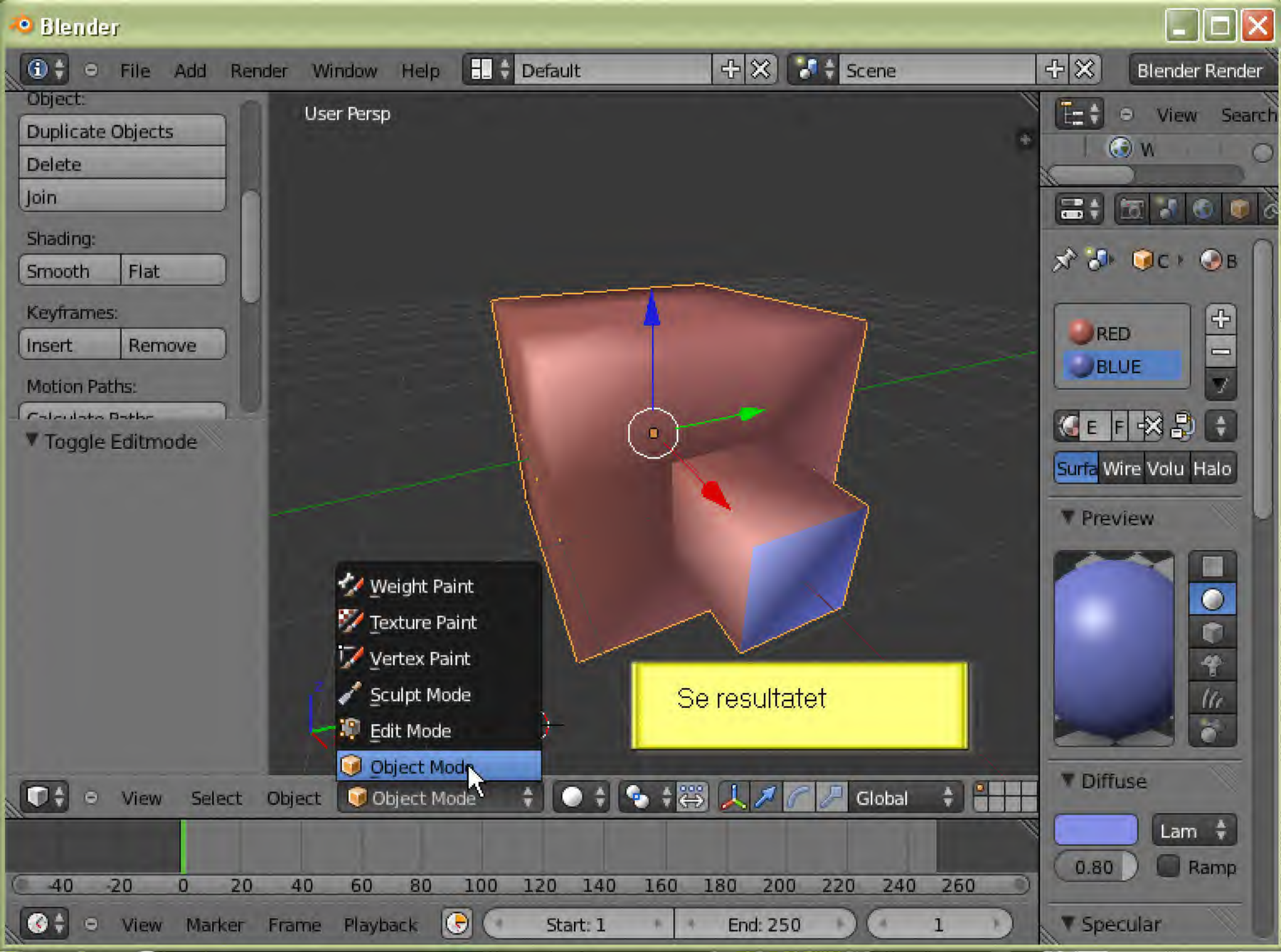
mesh_extrude_move_normal()

(1) Cube



Tryck in det markerade
området eller dra ut det.





File

Add

Render

Window

Help



Default



Scene



Blender Render

Object:

Duplicate Objects

Delete

Join

Shading:

Smooth

Flat

Keyframes:

Insert

Remove

Motion Paths:

Calculate Paths

▼ Toggle Editmode

User Persp

- Weight Paint
- Texture Paint
- Vertex Paint
- Sculpt Mode
- Edit Mode
- Object Mode

Se resultatet



View

Select

Object



Object Mode



Global

-40

-20

0

20

40

60

80

100

120

140

160

180

200

220

240

260



View

Marker

Frame

Playback

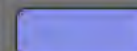


Start: 1

End: 250

1

▼ Diffuse

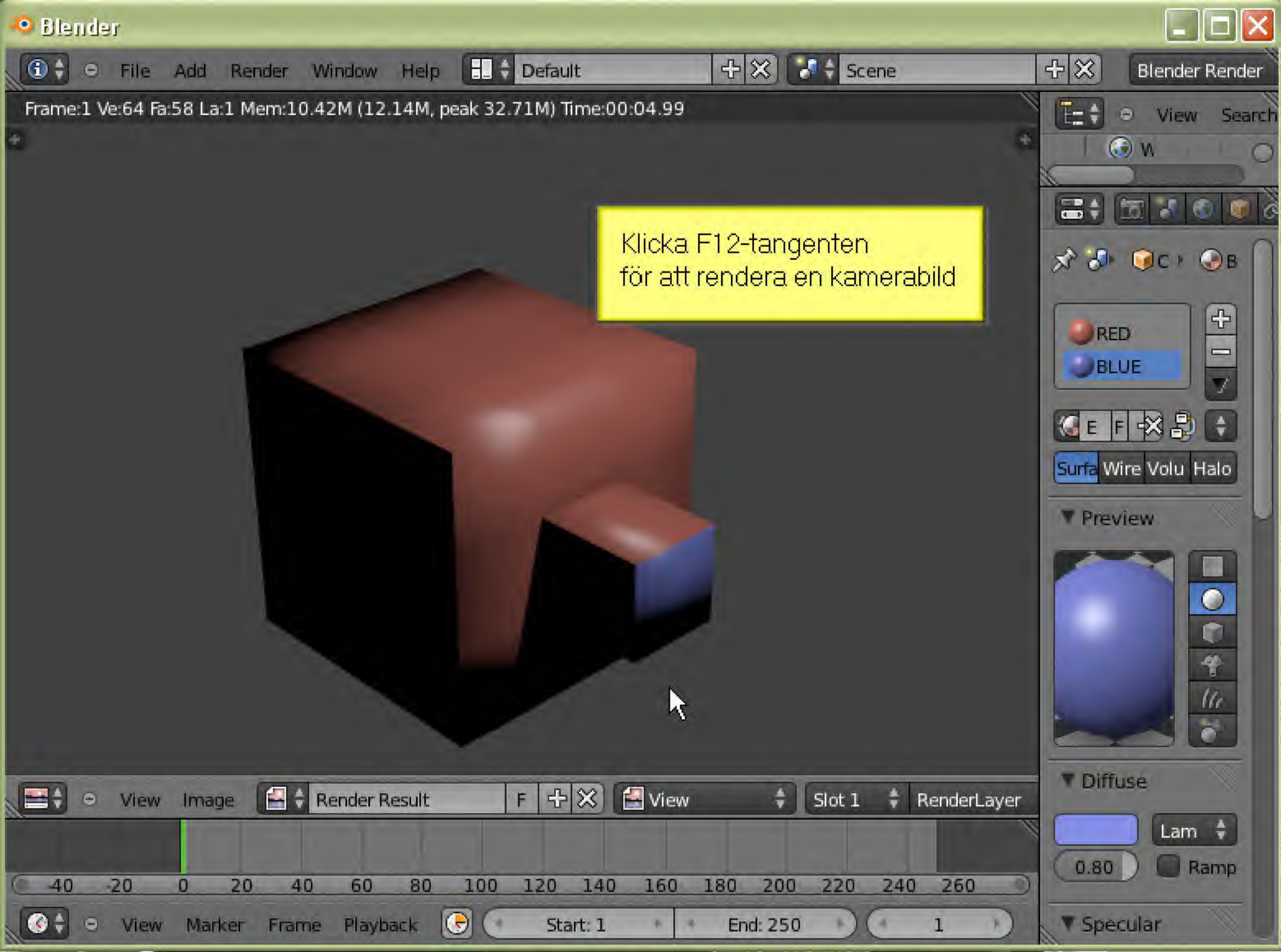


Lam

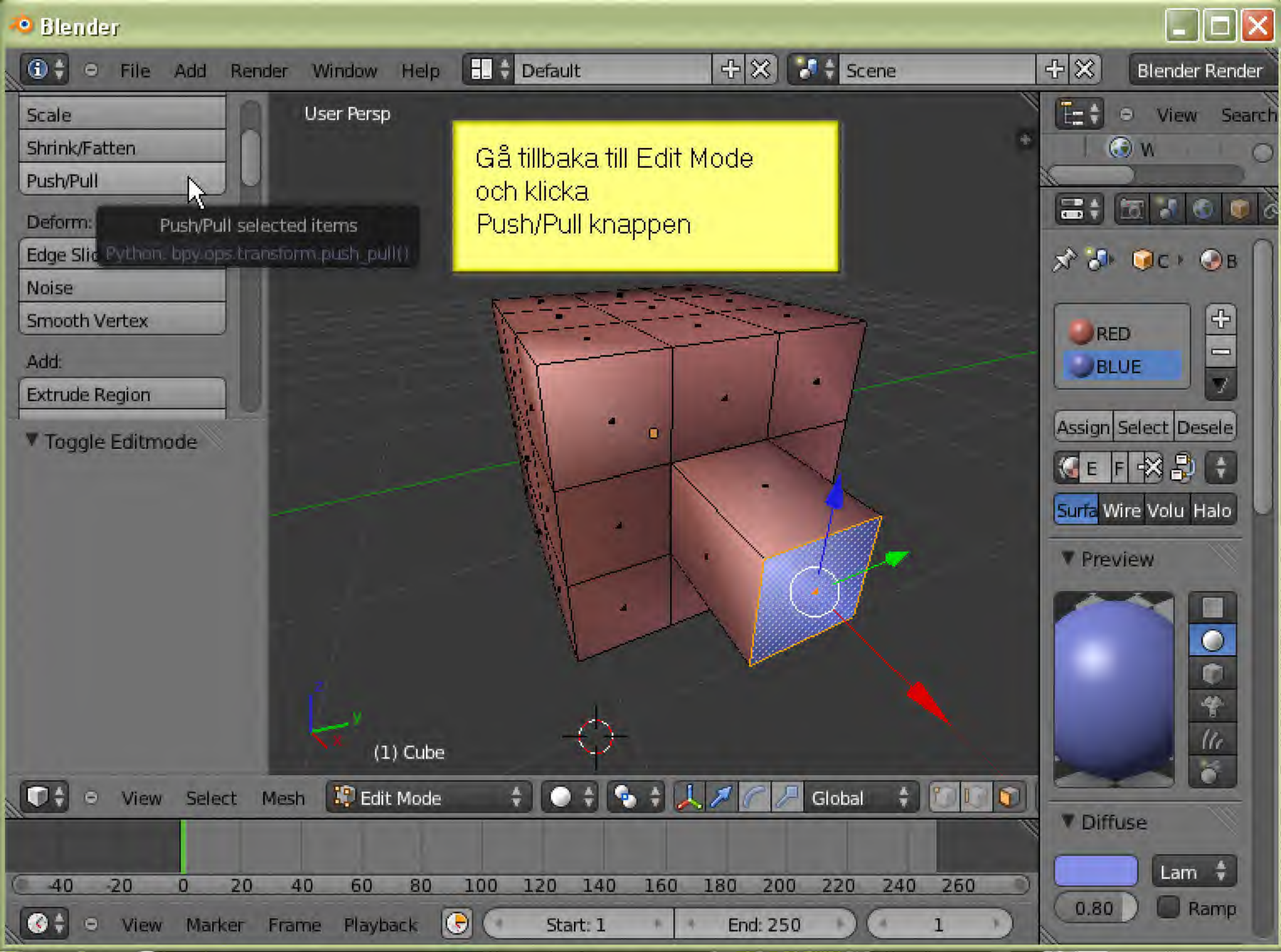
0.80

Ramp

▼ Specular



Klicka F12-tangenten
för att rendera en kamerabild



Blender

File Add Render Window Help

Default

Scene

Blender Render

Scale

Shrink/Fatten

Push/Pull

Deform: Push/Pull selected items

Edge Slide Python: bpy.ops.transform.push_pull()

Noise

Smooth Vertex

Add:

Extrude Region

▼ Toggle Editmode

User Persp

Gå tillbaka till Edit Mode
och klicka
Push/Pull knappen

(1) Cube

View Select Mesh Edit Mode

Global

View Marker Frame Playback

Start: 1

End: 250

1

View Search

W

Pin Camera Cube Ball

Assign Select Desele

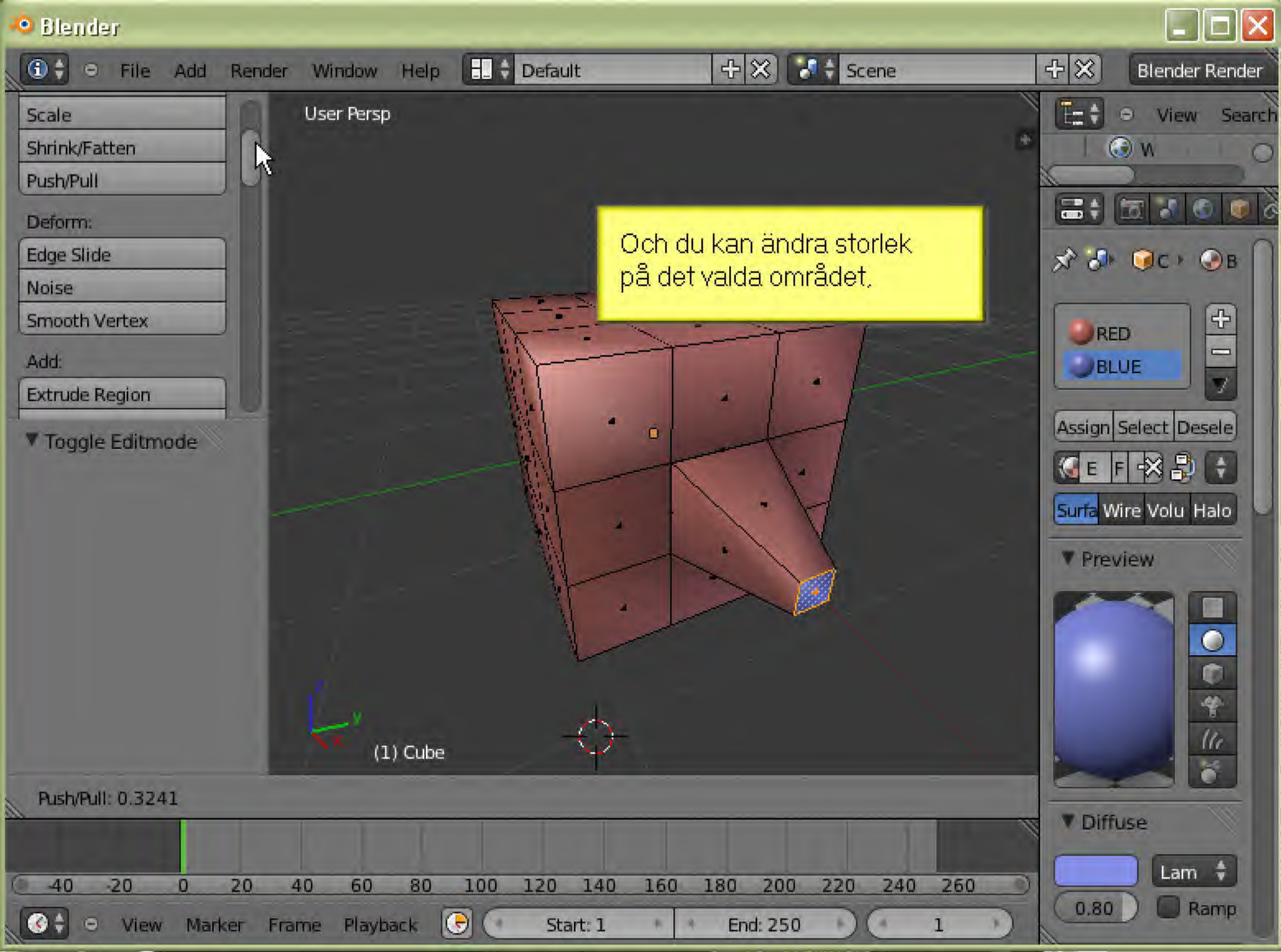
Surfa Wire Volu Halo

Preview

Diffuse

Lam

0.80 Ramp



Scale

Shrink/Fatten

Push/Pull

Deform:

Edge Slide

Noise

Smooth Vertex

Add:

Extrude Region

▼ Toggle Editmode

User Persp

Och du kan ändra storlek
på det valda området.

(1) Cube

Push/Pull: 0.3241

-40 -20 0 20 40 60 80 100 120 140 160 180 200 220 240 260

View Marker Frame Playback

Start: 1

End: 250

1

View Search

W

C B

RED BLUE

Assign Select Desele

E F X

Surfa Wire Volu Halo

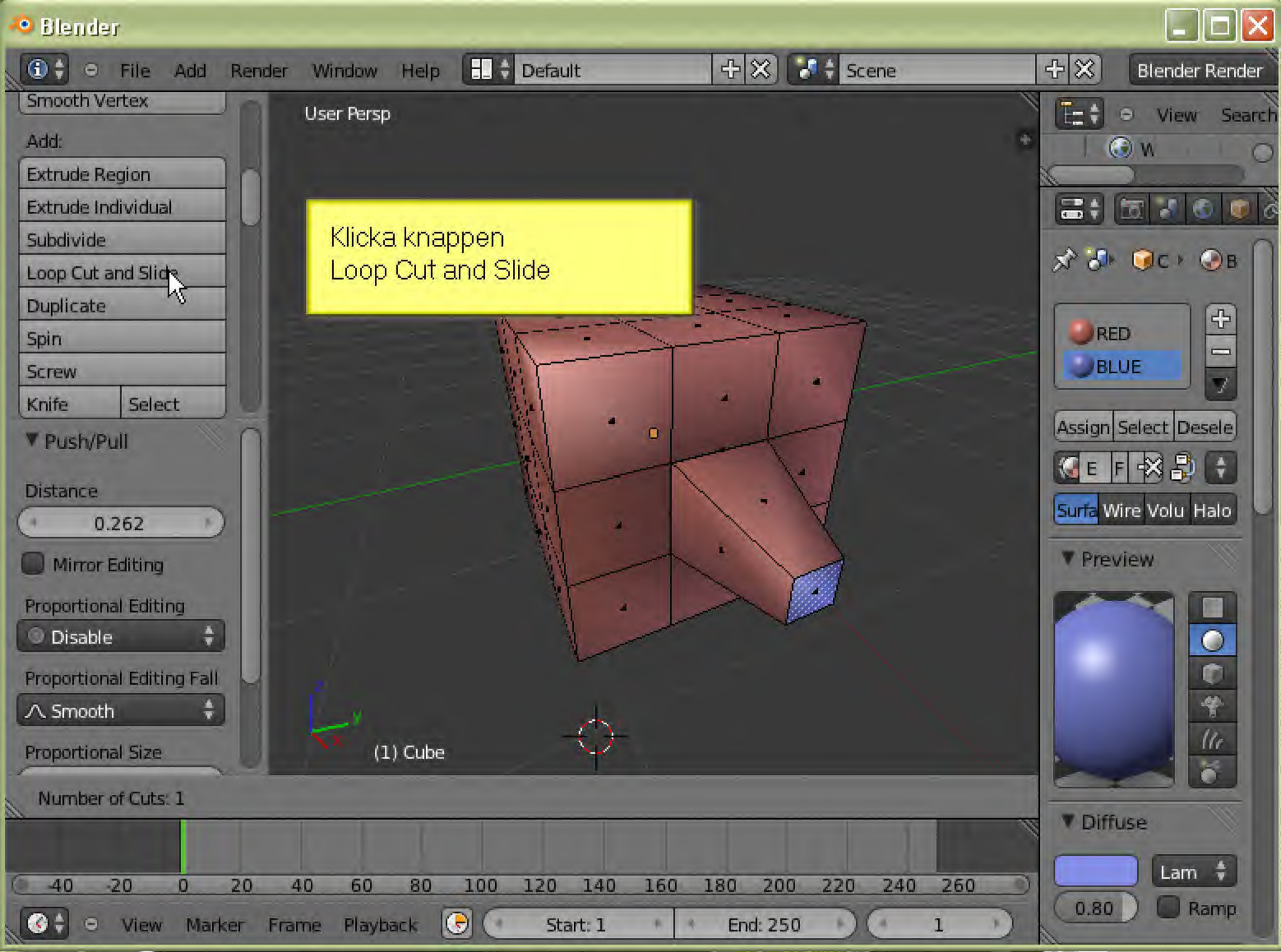
Preview

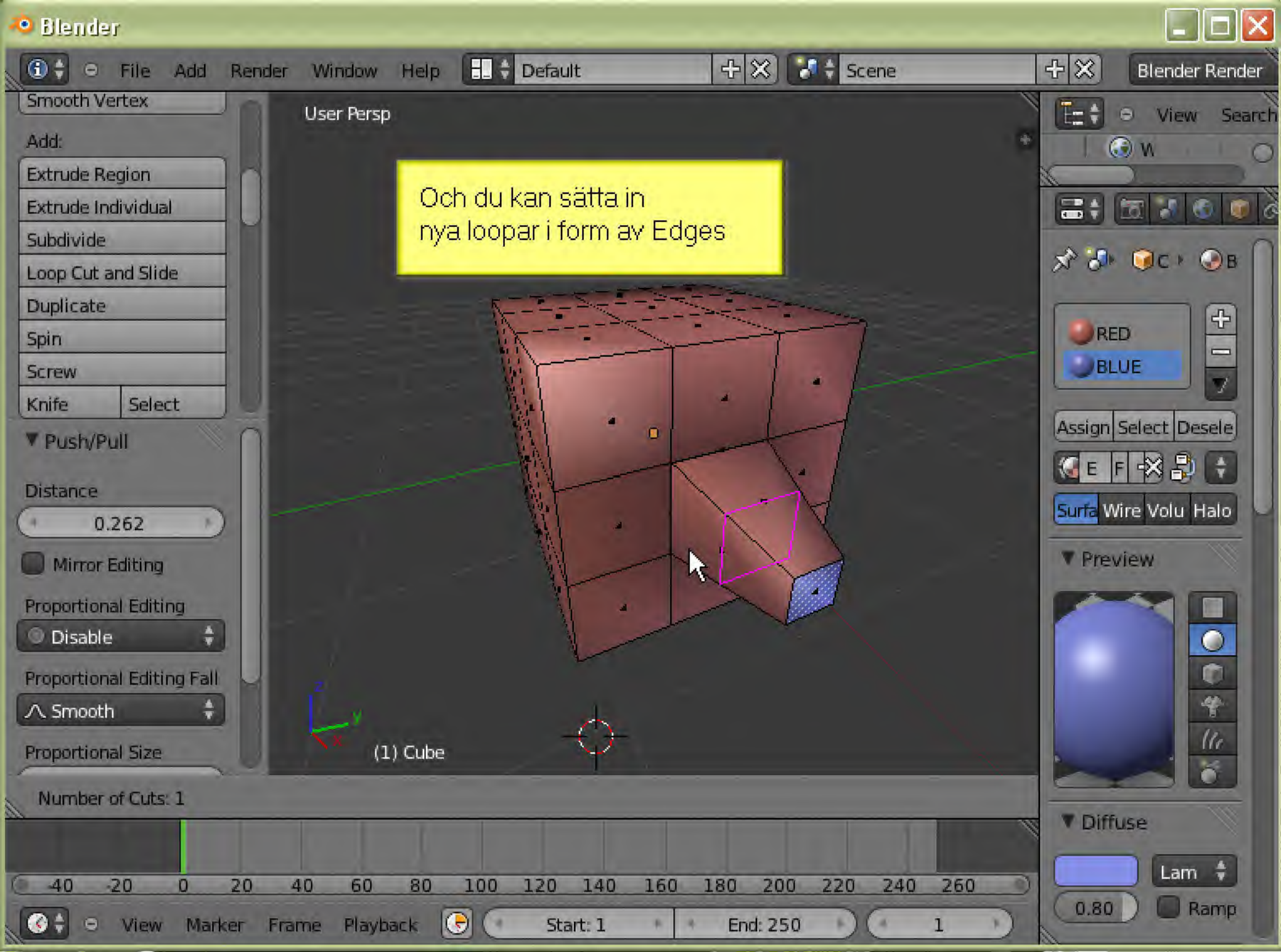
Diffuse

Lam

0.80

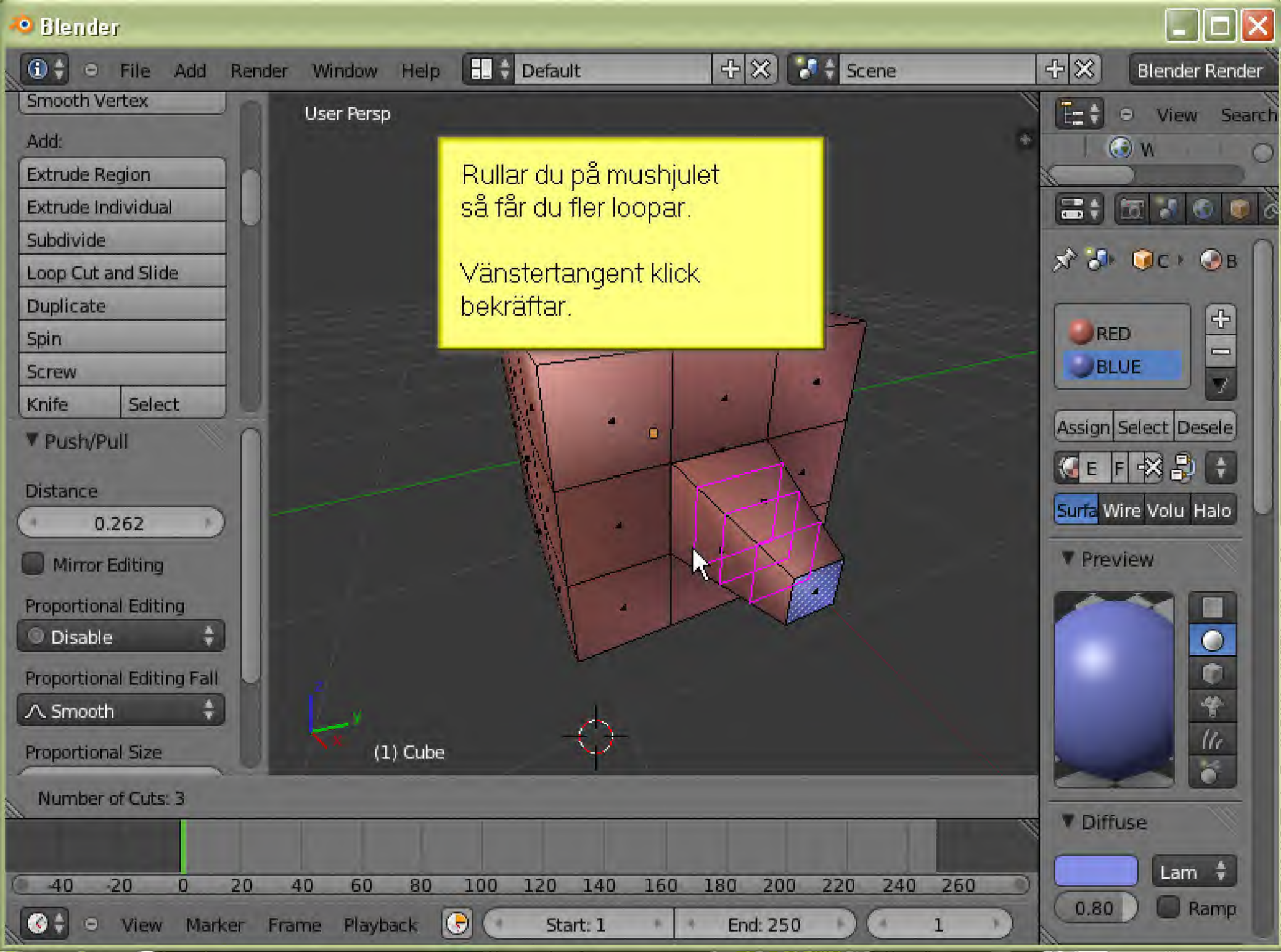
Ramp





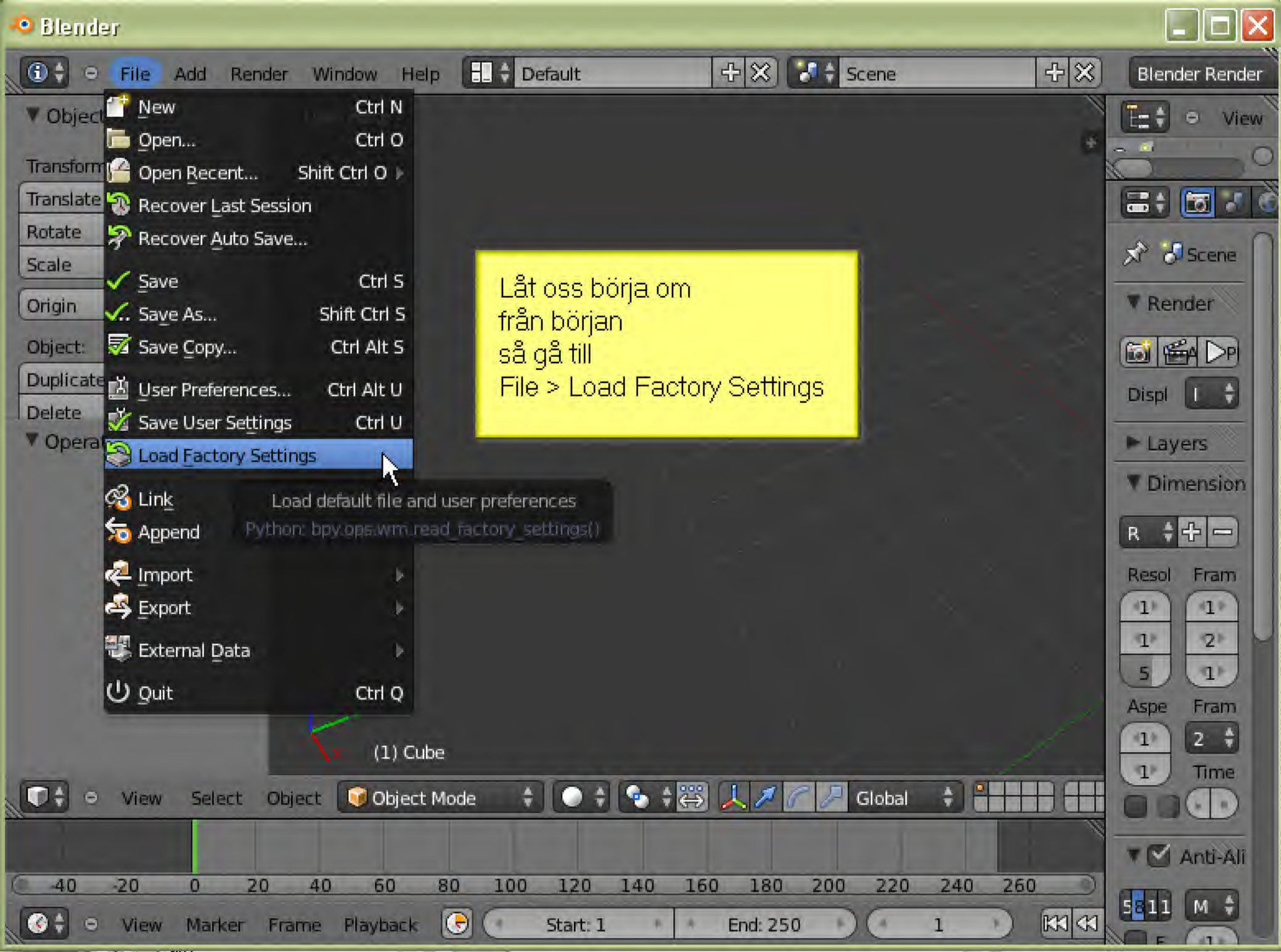
Och du kan sätta in
nya loopar i form av Edges

(1) Cube



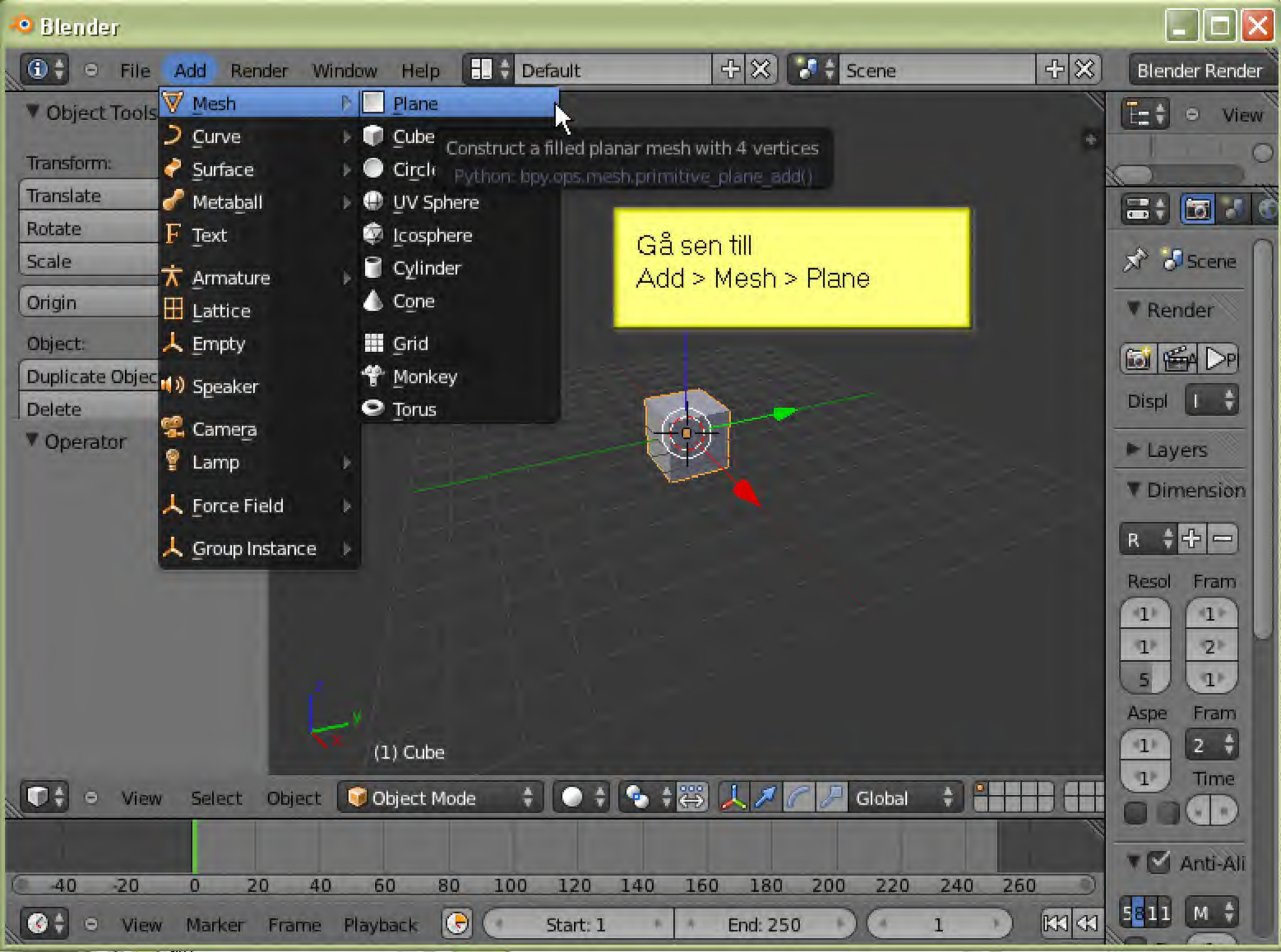
Rullar du på mushjulet
så får du fler loopar.

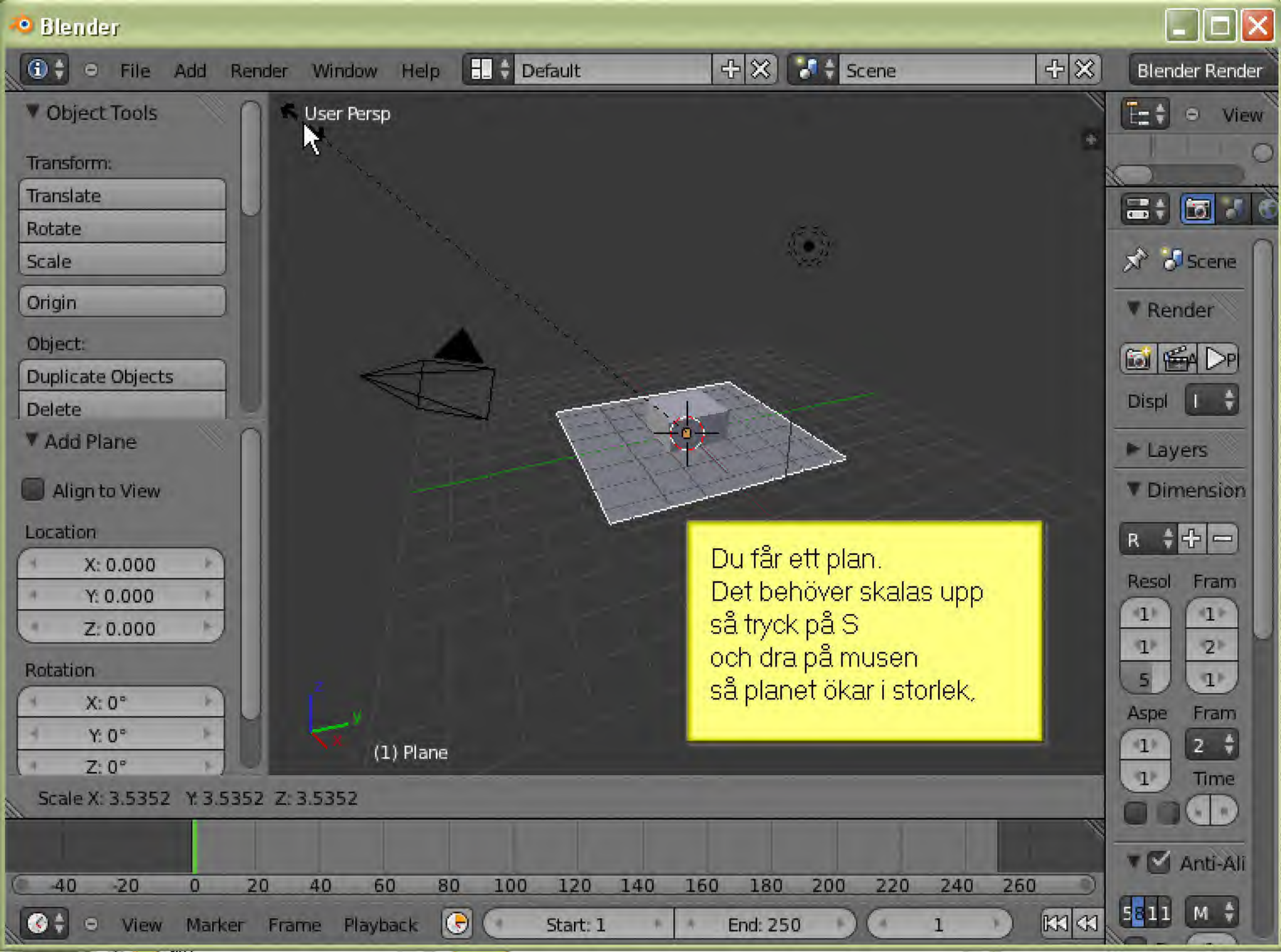
Vänstertangent klick
bekräftar.



- ▼ Object
 - New Ctrl N
 - Open... Ctrl O
 - Open Recent... Shift Ctrl O ▶
 - Recover Last Session
 - Recover Auto Save...
 - Save Ctrl S
 - Save As... Shift Ctrl S
 - Save Copy... Ctrl Alt S
 - User Preferences... Ctrl Alt U
 - Save User Settings Ctrl U
 - Load Factory Settings
 - Link Load default file and user preferences
 - Append Python: bpy.ops.wm.read_factory_settings()
 - Import ▶
 - Export ▶
 - External Data ▶
 - Quit Ctrl Q
- ▼ Operations

Låt oss börja om
från början
så gå till
File > Load Factory Settings





Object Tools

Transform:

Translate

Rotate

Scale

Origin

Object:

Duplicate Objects

Delete

Add Plane

☐ Align to View

Location

X: 0.000

Y: 0.000

Z: 0.000

Rotation

X: 0°

Y: 0°

Z: 0°

User Persp

(1) Plane

Scale X: 3.5352 Y: 3.5352 Z: 3.5352

Du får ett plan.
Det behöver skalas upp
så tryck på S
och dra på musen
så planet ökar i storlek.

View

Scene

Render

Render

Displ

Layers

Dimension

R

Resol

Fram

1

Aspe

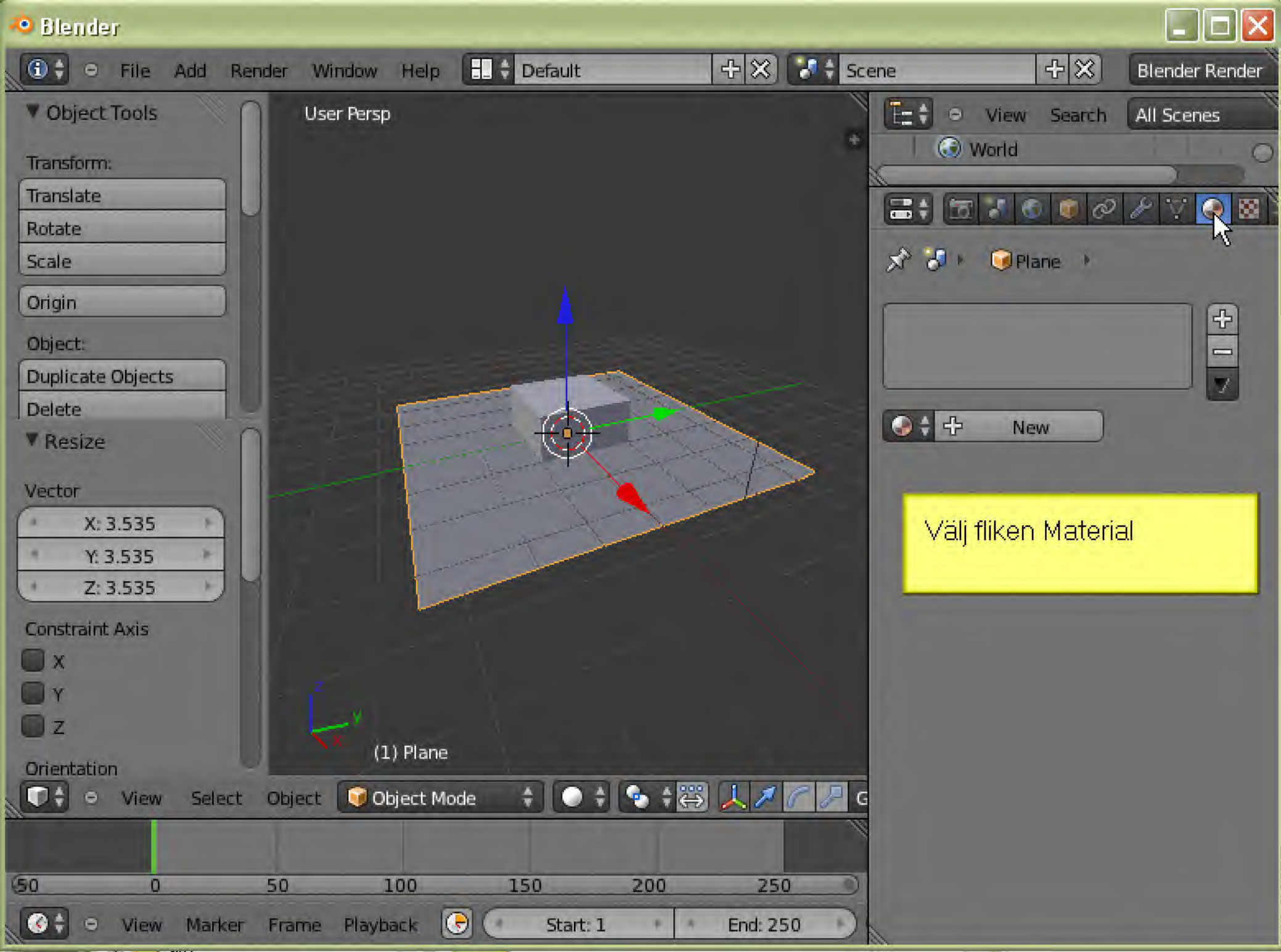
Fram

Time

Anti-Ali

5811

M



Blender

File Add Render Window Help

Default

Scene

Blender Render

Object Tools

Transform:

Translate

Rotate

Scale

Origin

Object:

Duplicate Objects

Delete

Resize

Vector

X: 3.535

Y: 3.535

Z: 3.535

Constraint Axis

X

Y

Z

Orientation

View Select Object Object Mode

View Search

All Scenes

World

Plane

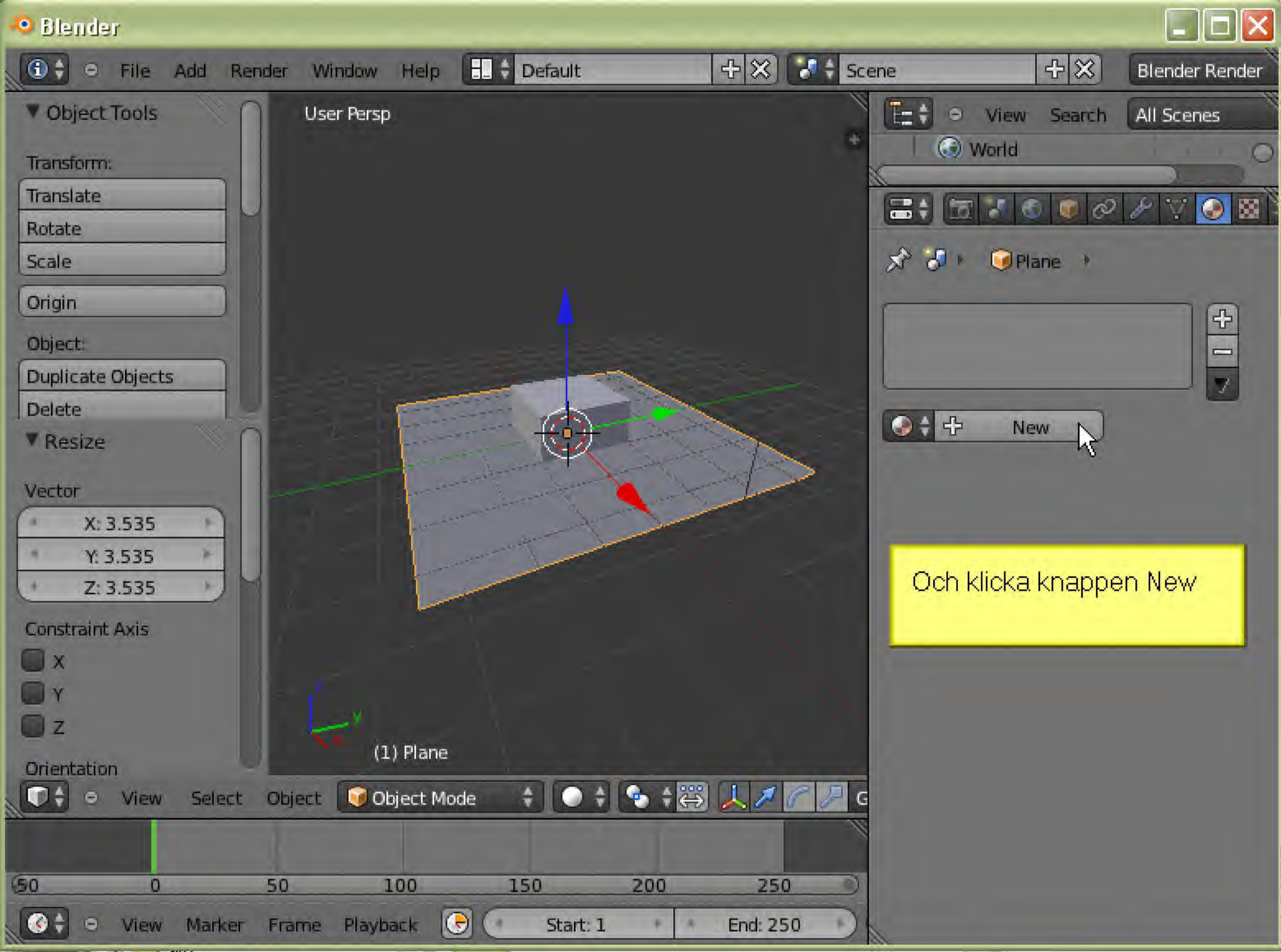
New

Välj fliken Material

(1) Plane

Start: 1

End: 250



Blender

File Add Render Window Help

Default

Scene

Blender Render

Object Tools

Transform:

Translate

Rotate

Scale

Origin

Object:

Duplicate Objects

Delete

Resize

Vector

X: 3.535

Y: 3.535

Z: 3.535

Constraint Axis

X

Y

Z

Orientation

View

Select

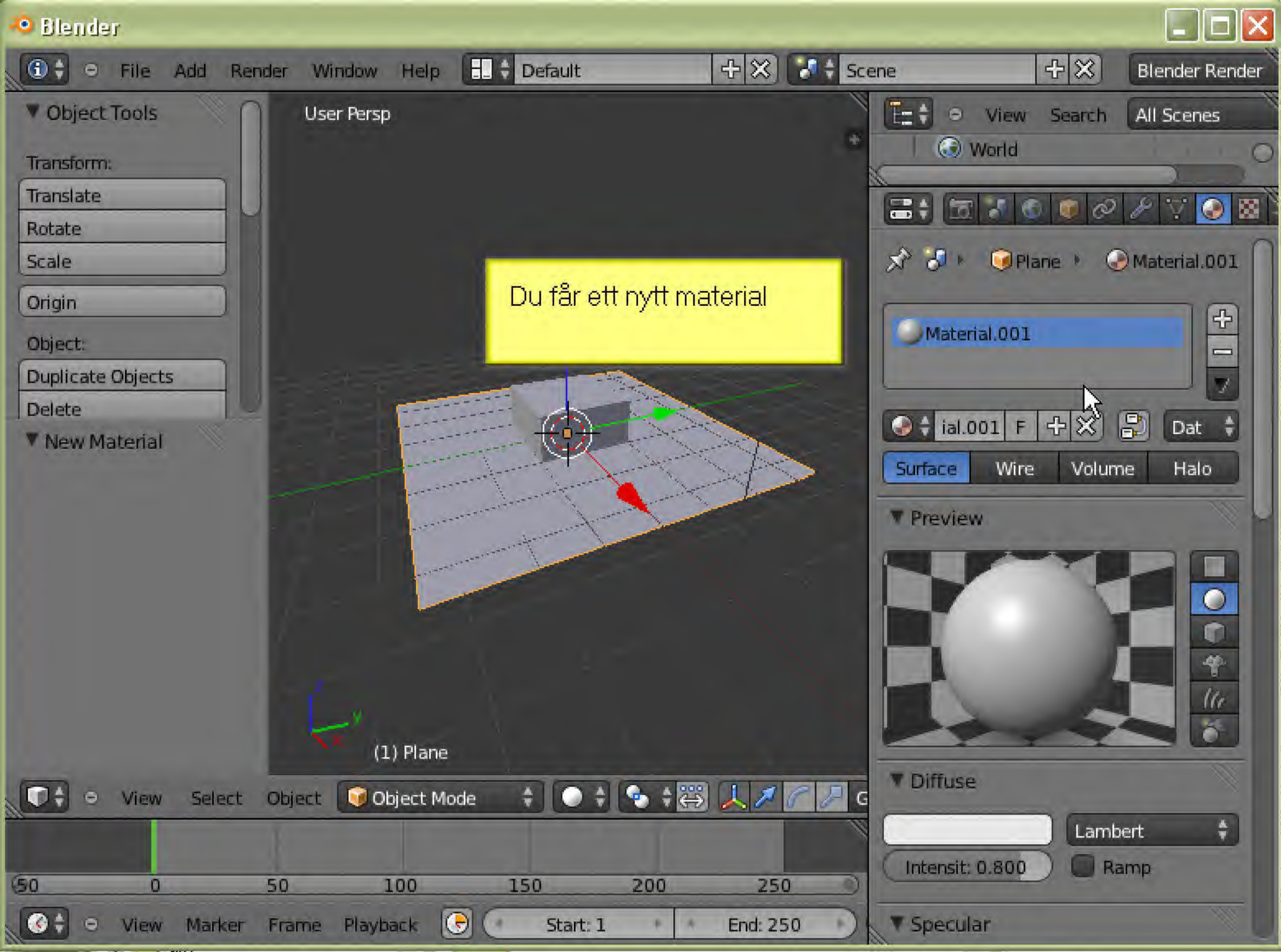
Object

Object Mode

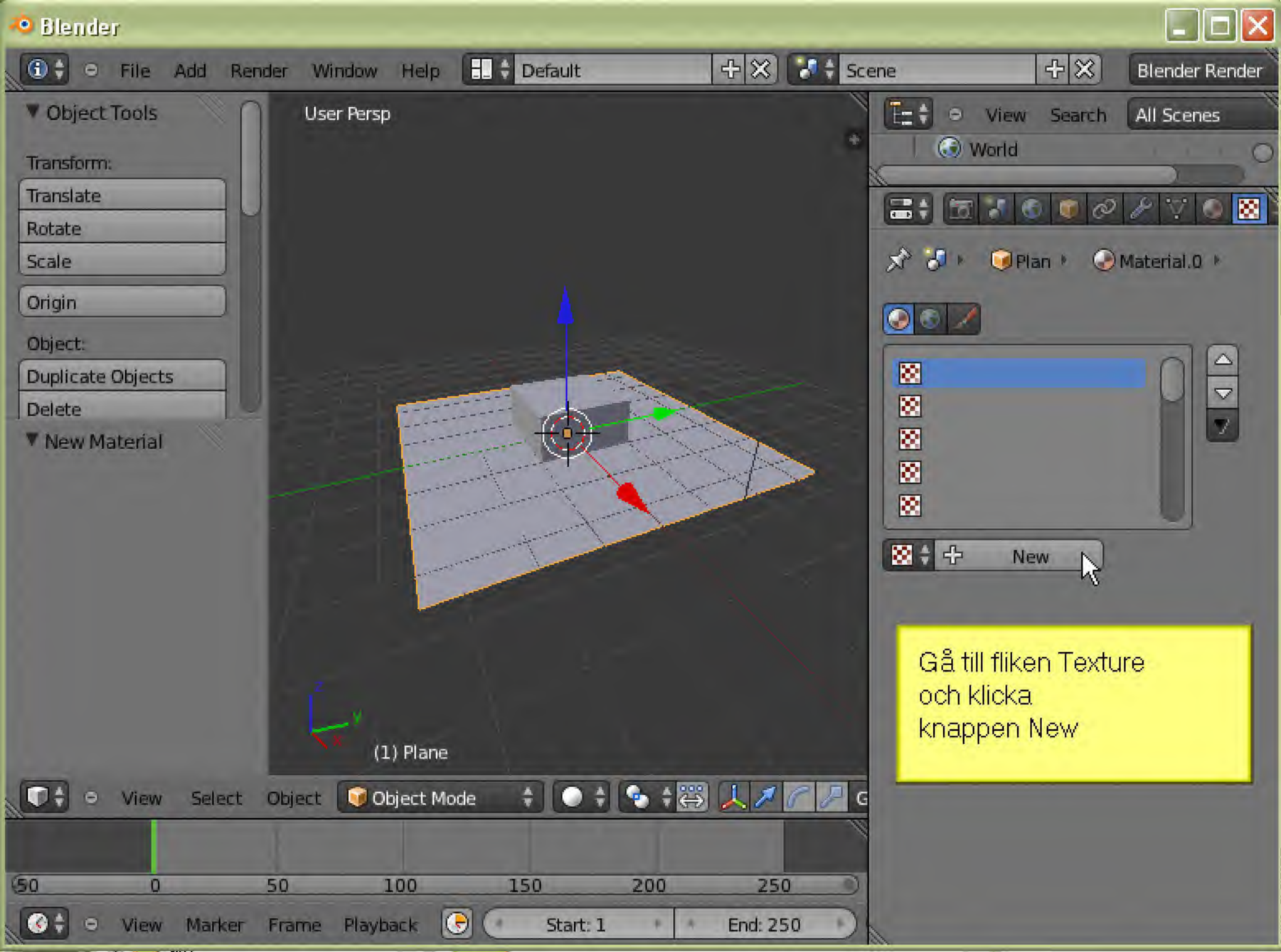
Start: 1

End: 250

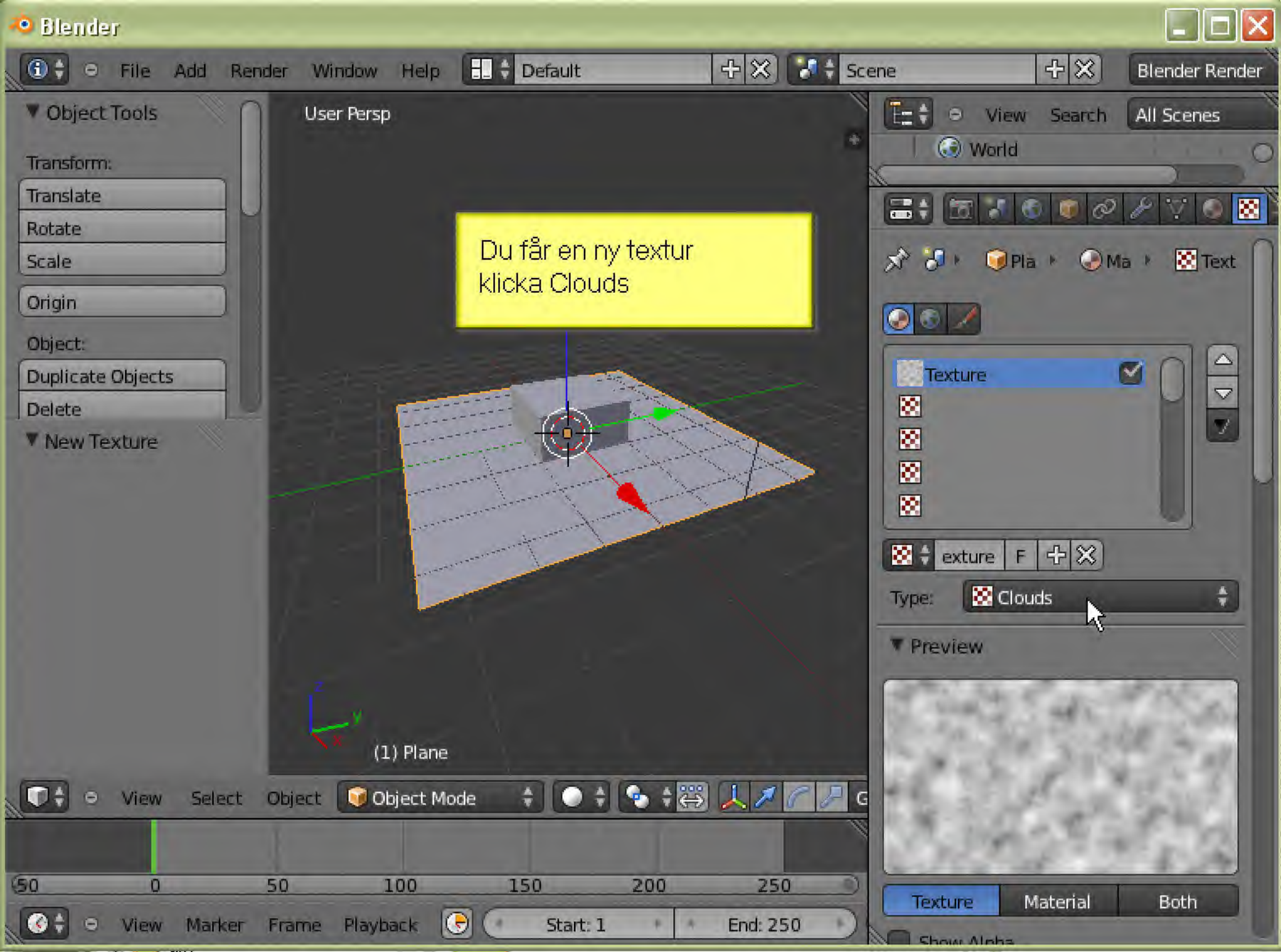
Och klicka knappen New

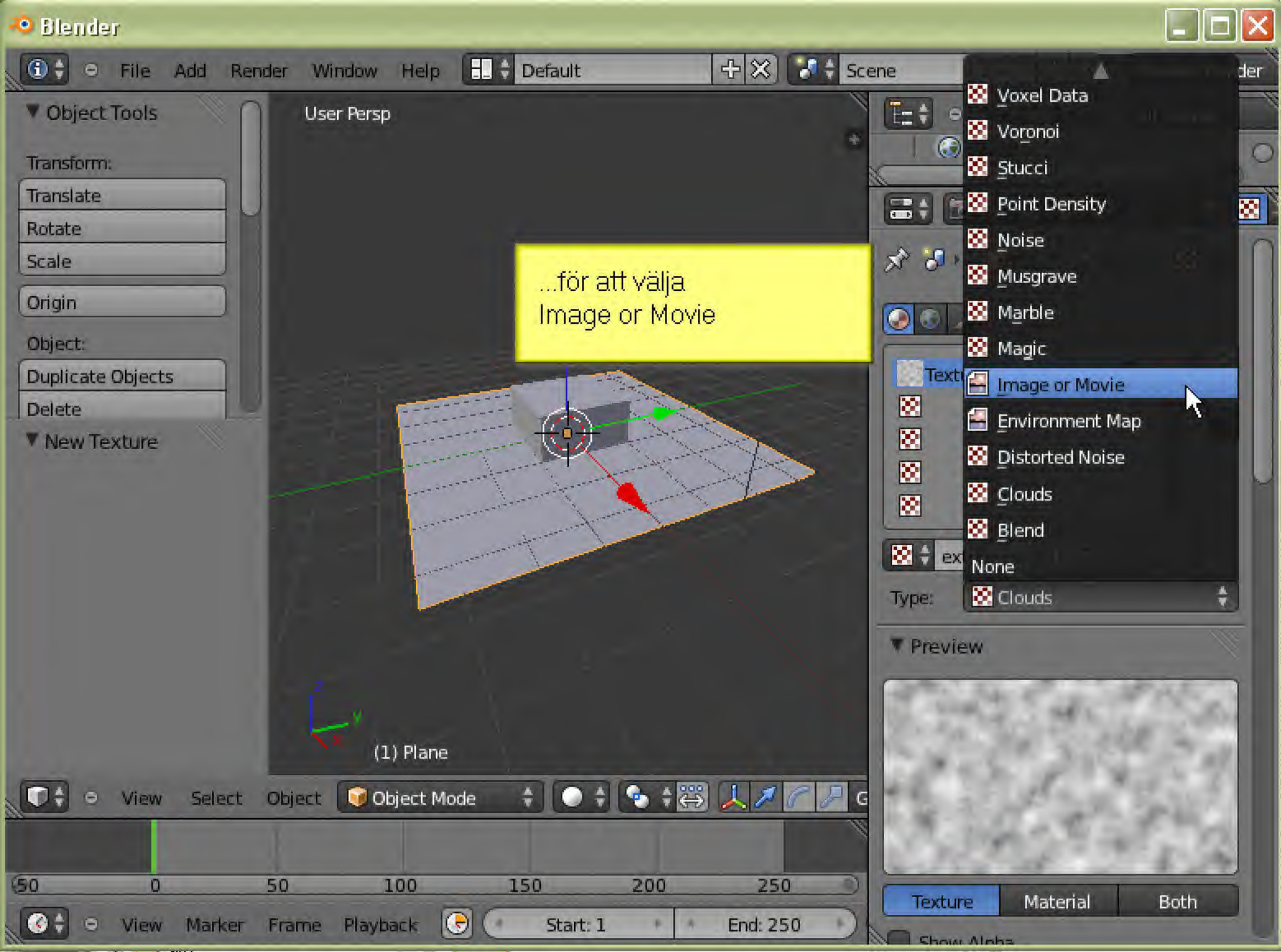


Du får ett nytt material

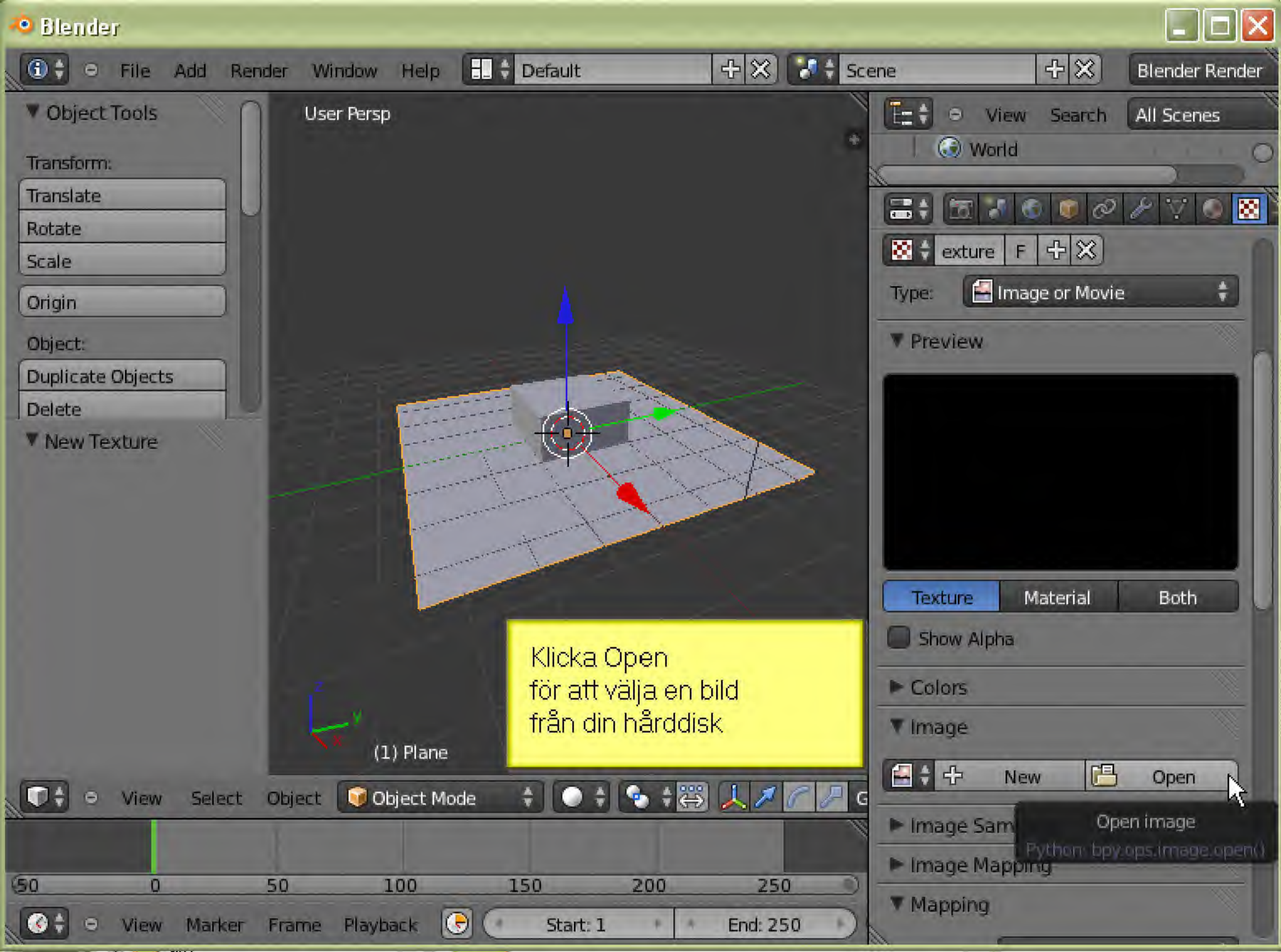


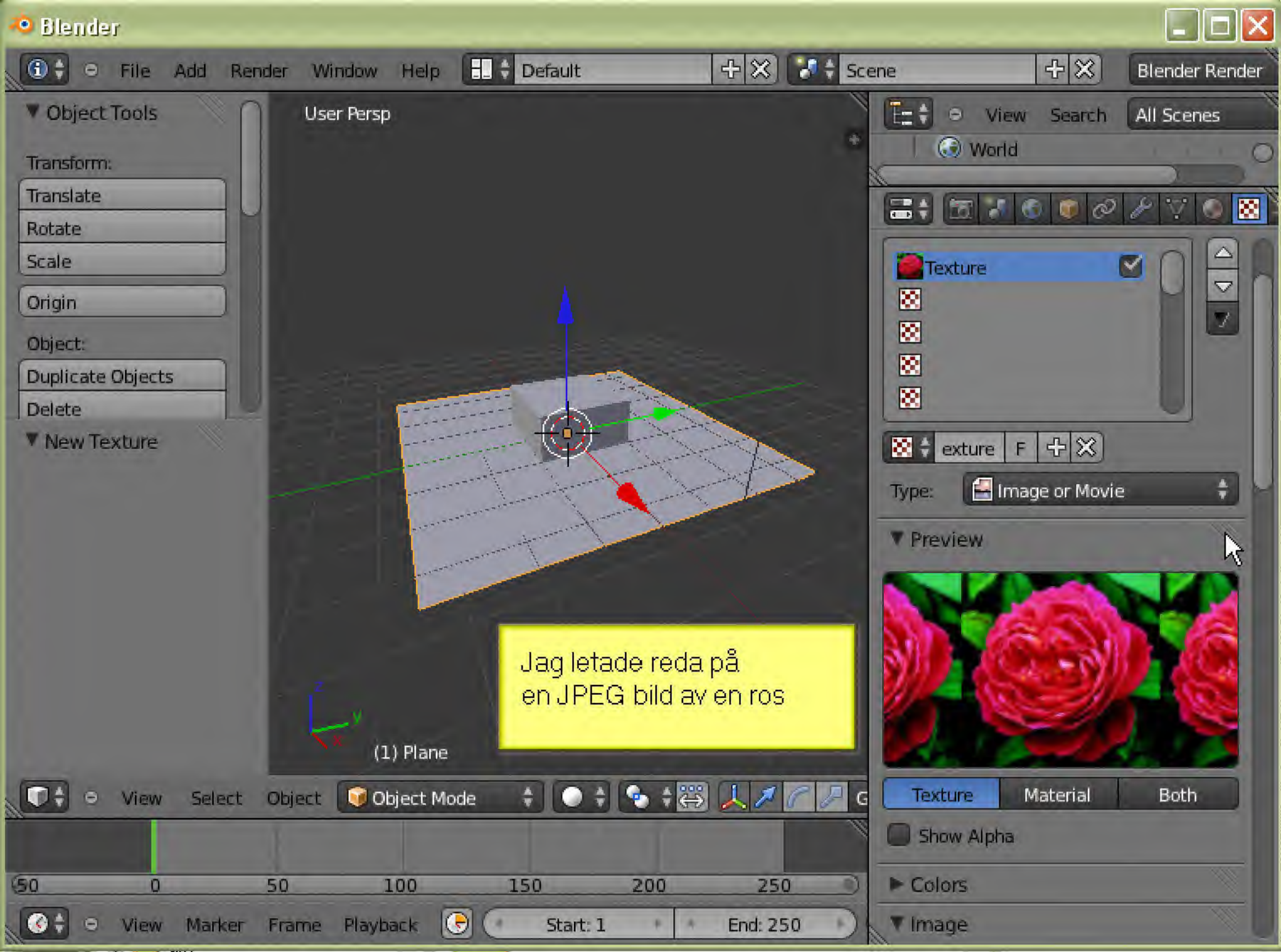
Gå till fliken Texture
och klicka
knappen New





...för att välja
Image or Movie





▼ Object Tools

Transform:

Translate

Rotate

Scale

Origin

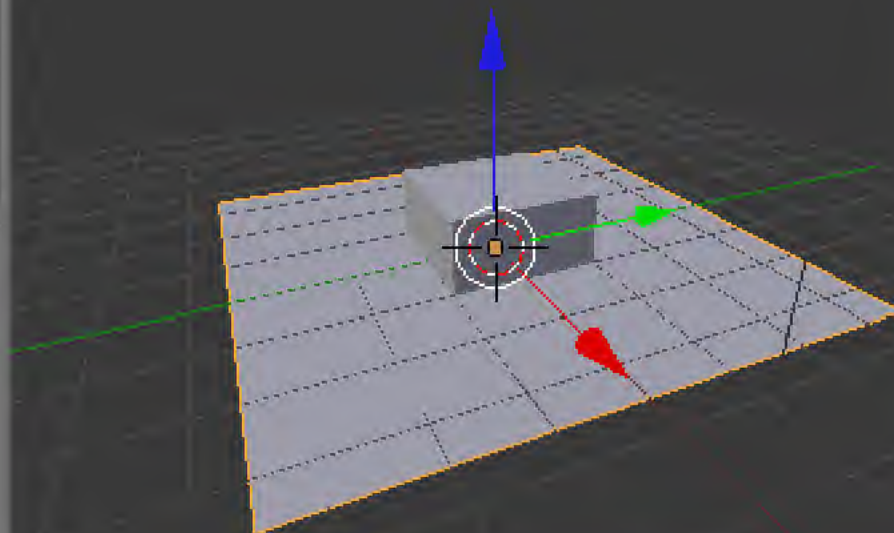
Object:

Duplicate Objects

Delete

▼ New Texture

User Persp



(1) Plane

Jag letade reda på
en JPEG bild av en ros

View Search All Scenes

World

Texture

Texture F

Type: Image or Movie

▼ Preview

Texture Material Both

Show Alpha

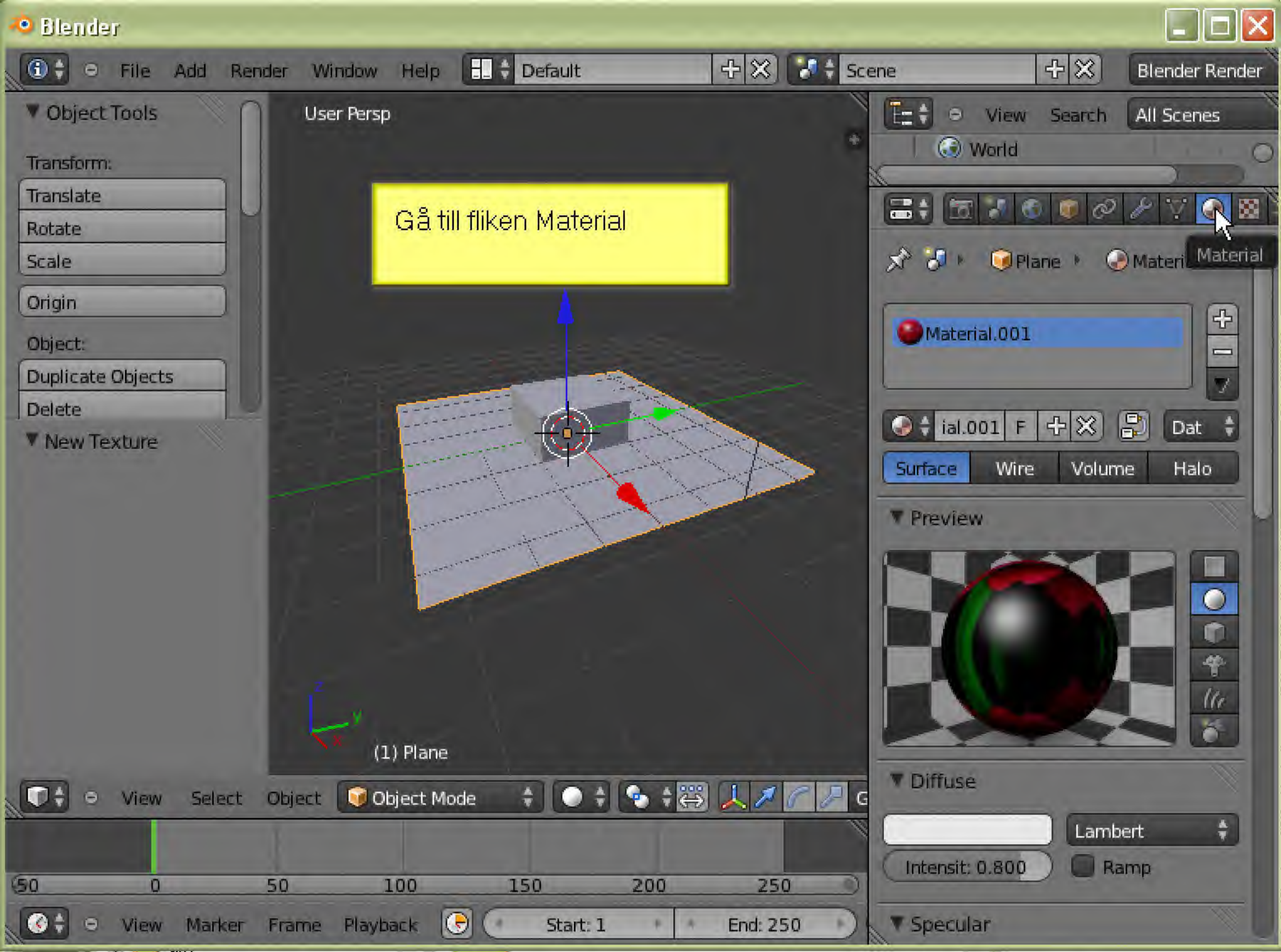
Colors

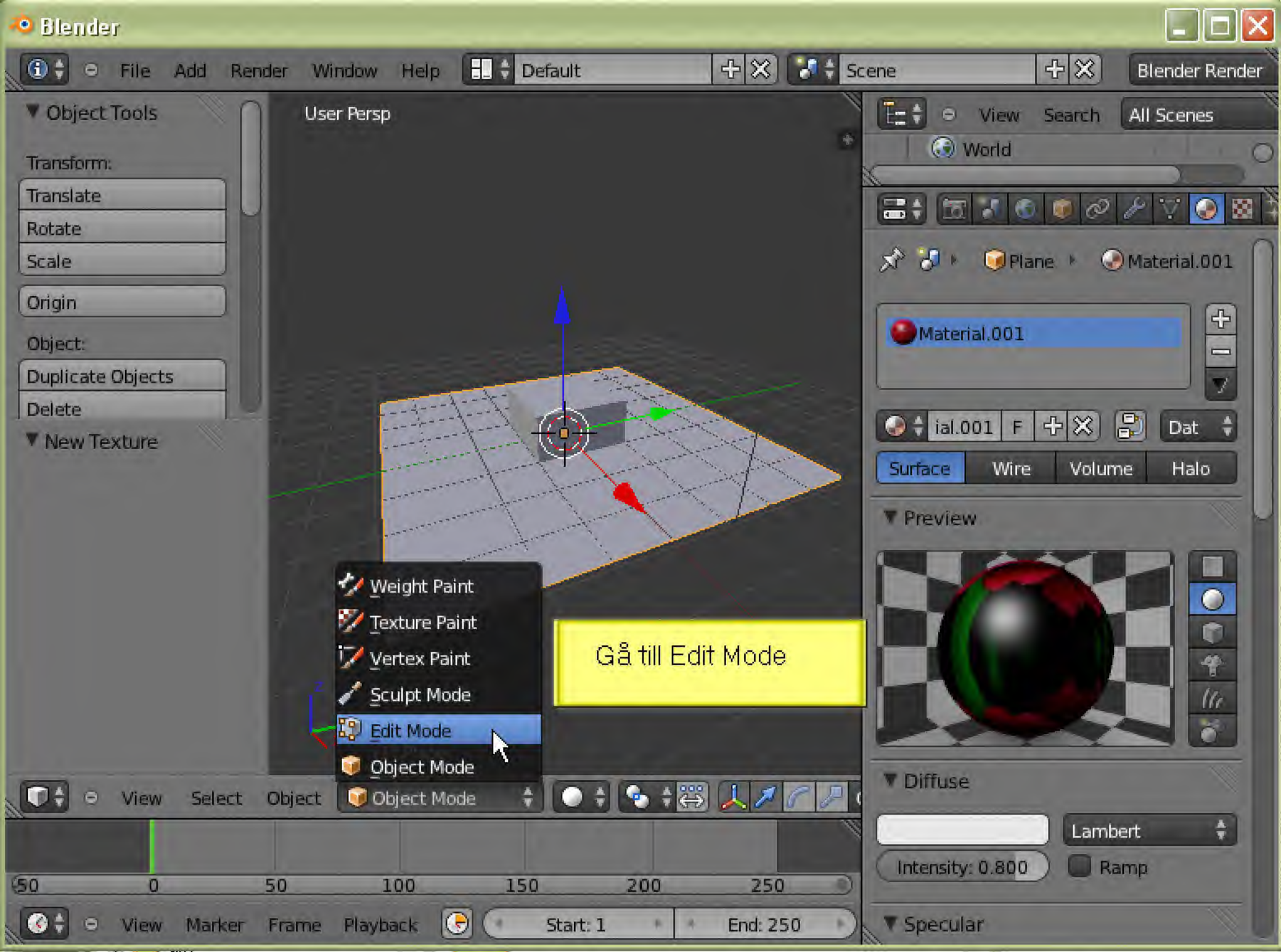
Image

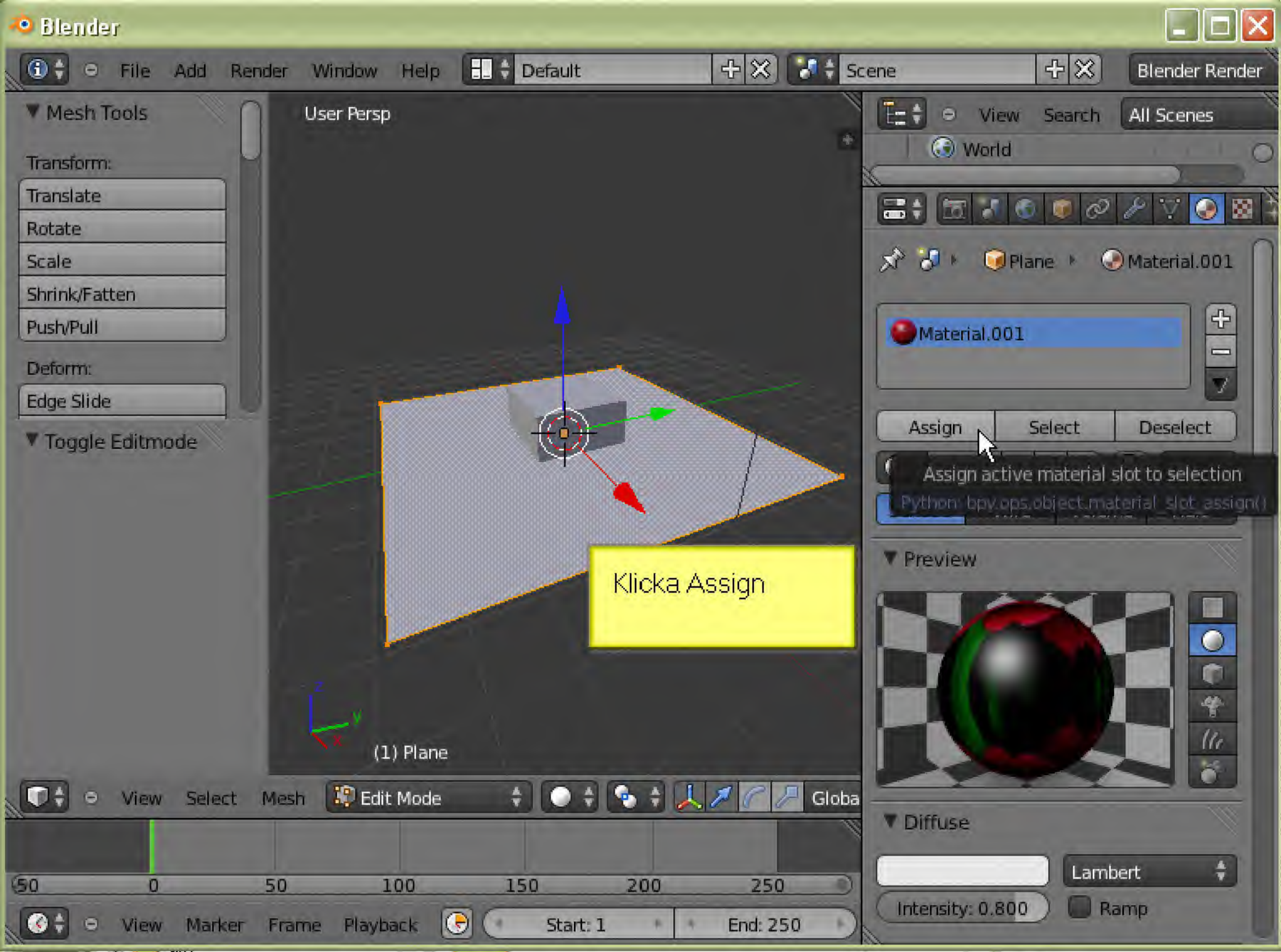
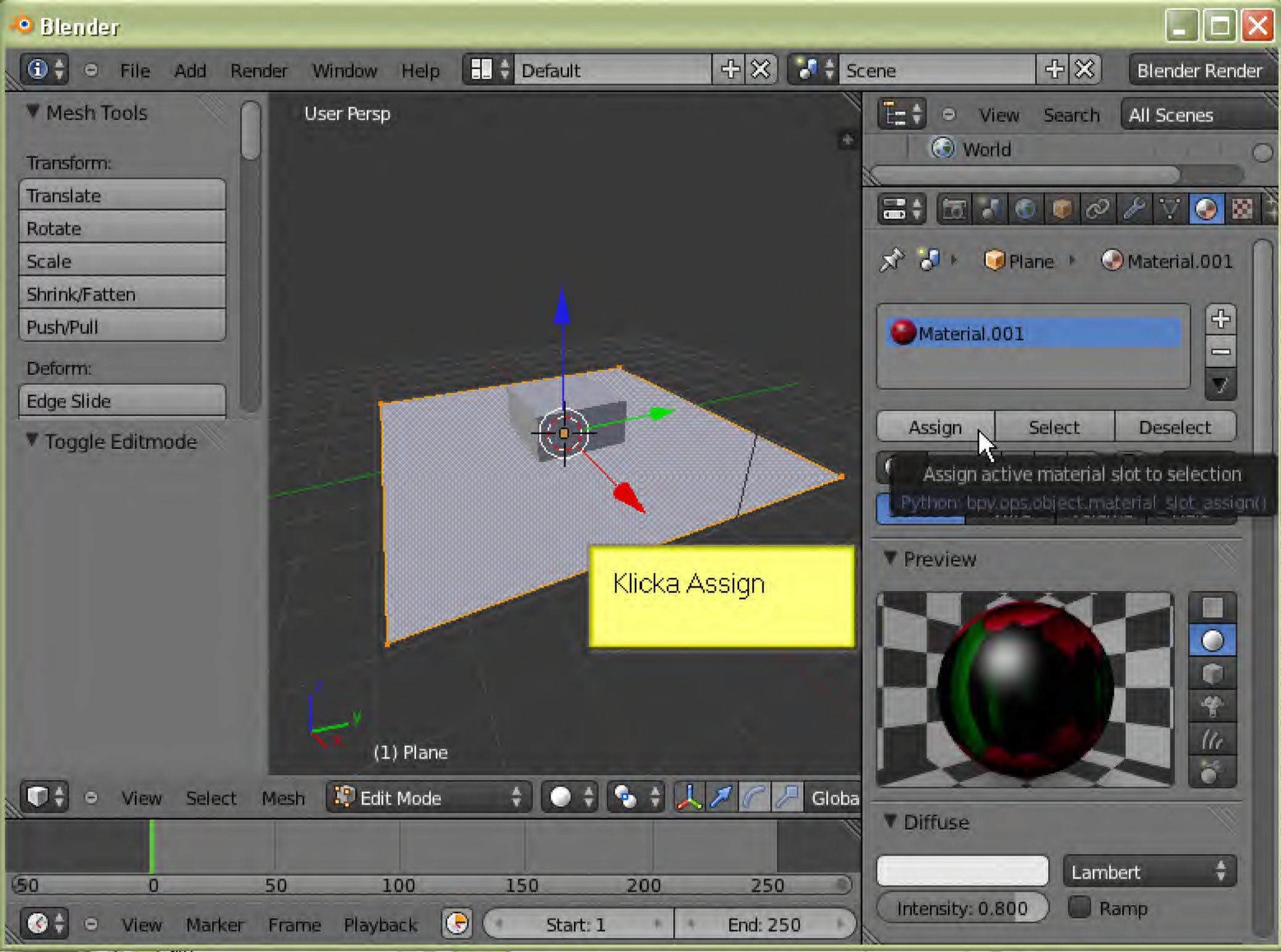
View Select Object Object Mode

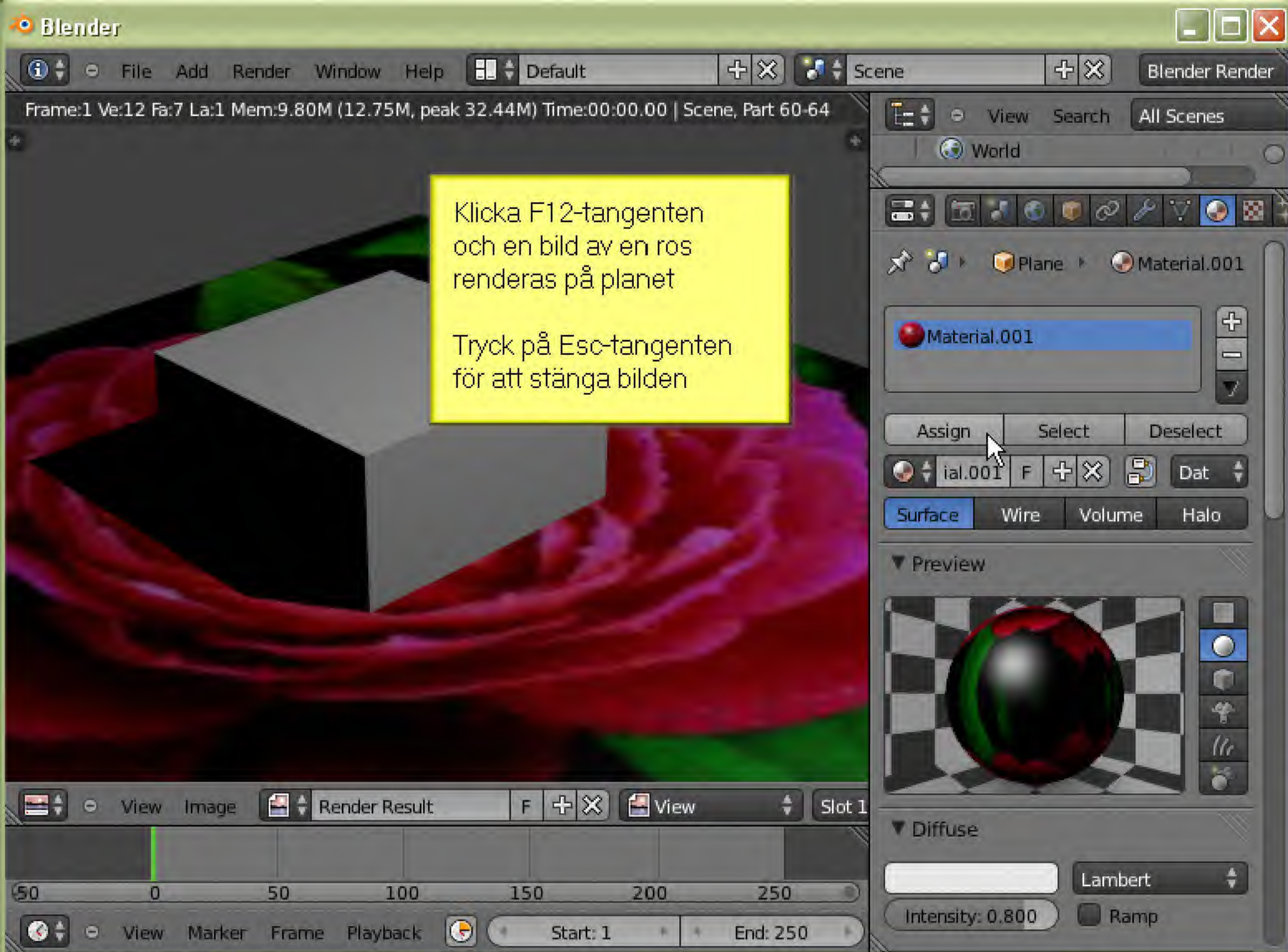
50 0 50 100 150 200 250

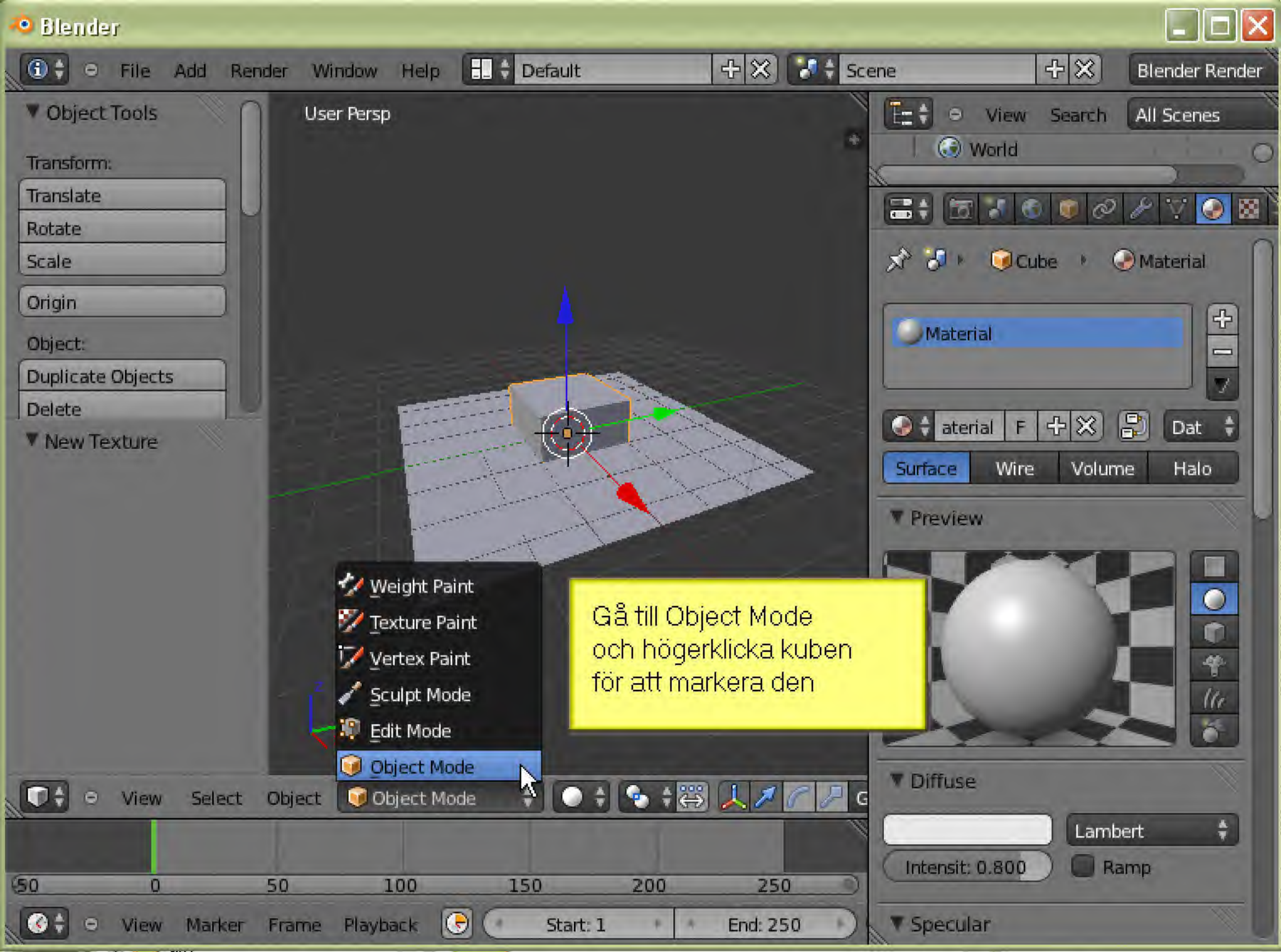
View Marker Frame Playback Start: 1 End: 250











▼ Object Tools

Transform:

Translate

Rotate

Scale

Origin

Object:

Duplicate Objects

Delete

▼ New Texture

User Persp

World

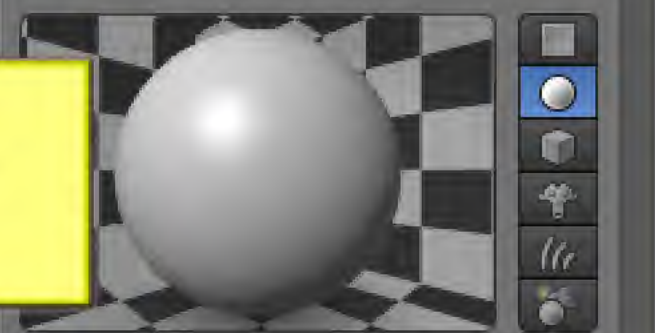
Cube Material

Material

Material F Dat

Surface Wire Volume Halo

▼ Preview



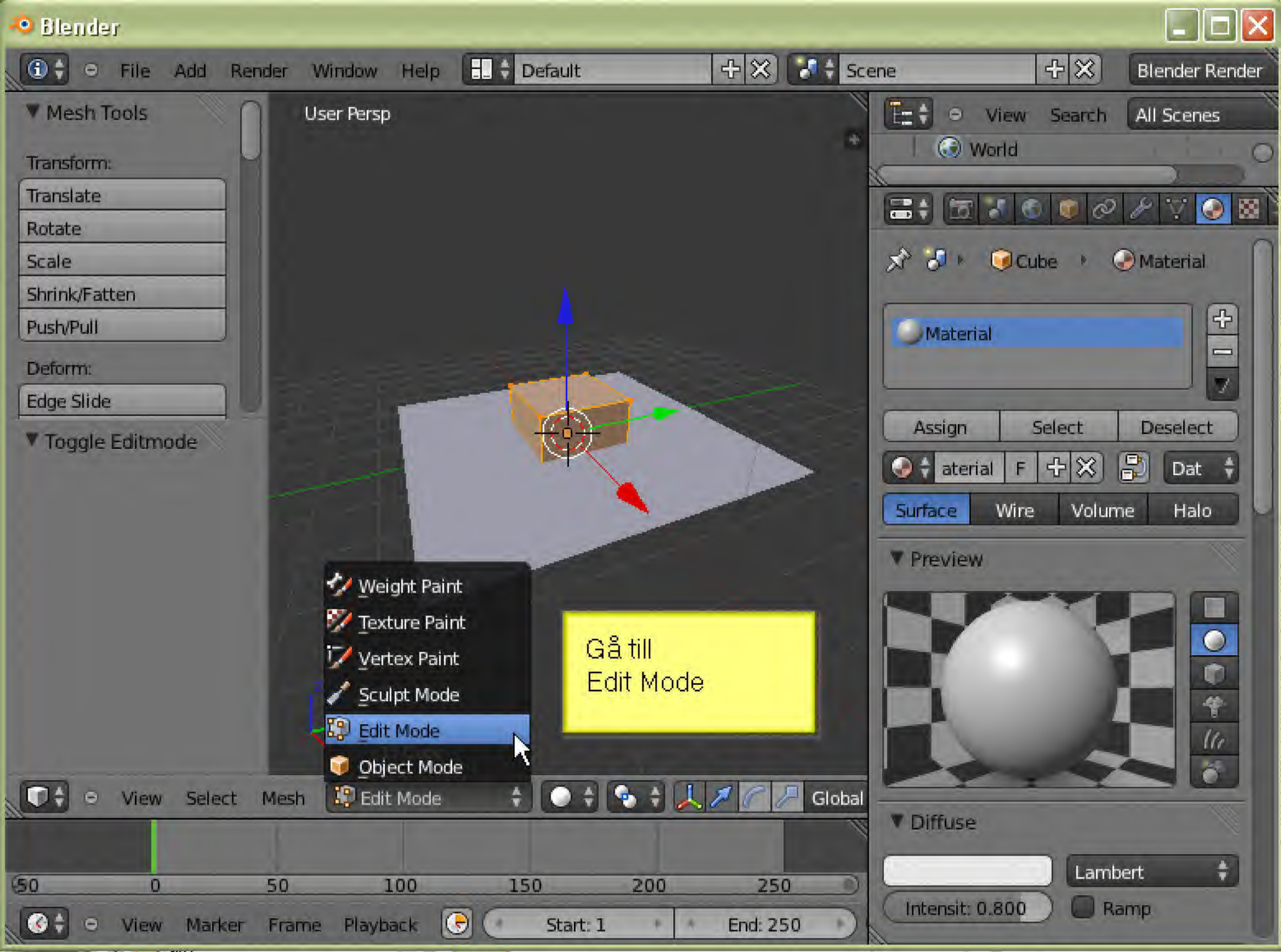
▼ Diffuse

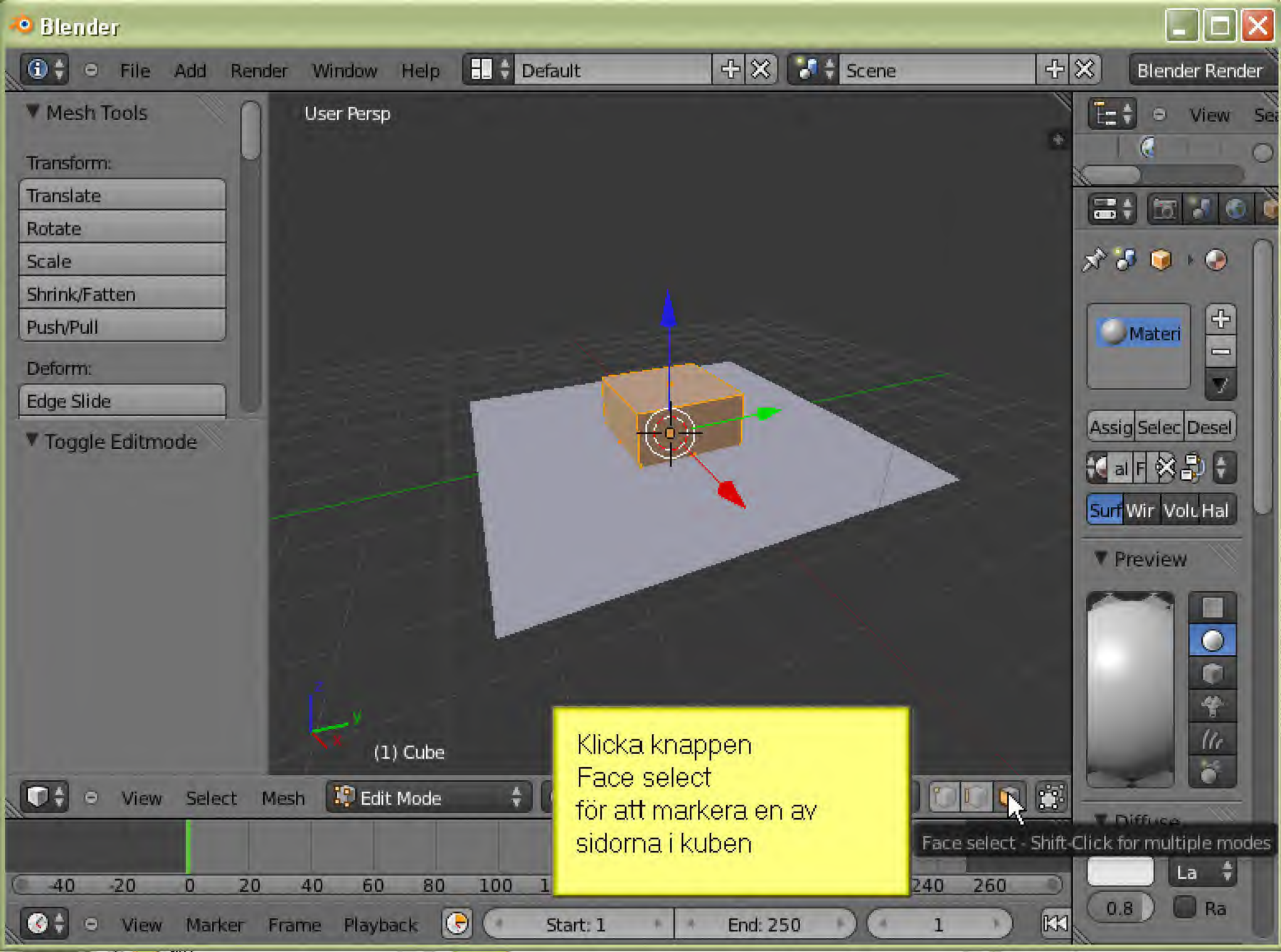
Lambert

Intensit: 0.800 Ramp

▼ Specular

Gå till Object Mode
och högerklicka kuben
för att markera den





▼ Mesh Tools

Transform:

Translate

Rotate

Scale

Shrink/Fatten

Push/Pull

Deform:

Edge Slide

▼ Toggle Editmode

User Persp

(1) Cube

Klicka knappen
Face select
för att markera en av
sidorna i kuben

View

Material

Assign Select Deselect

Surface Wireframe Volume Halfray

Preview

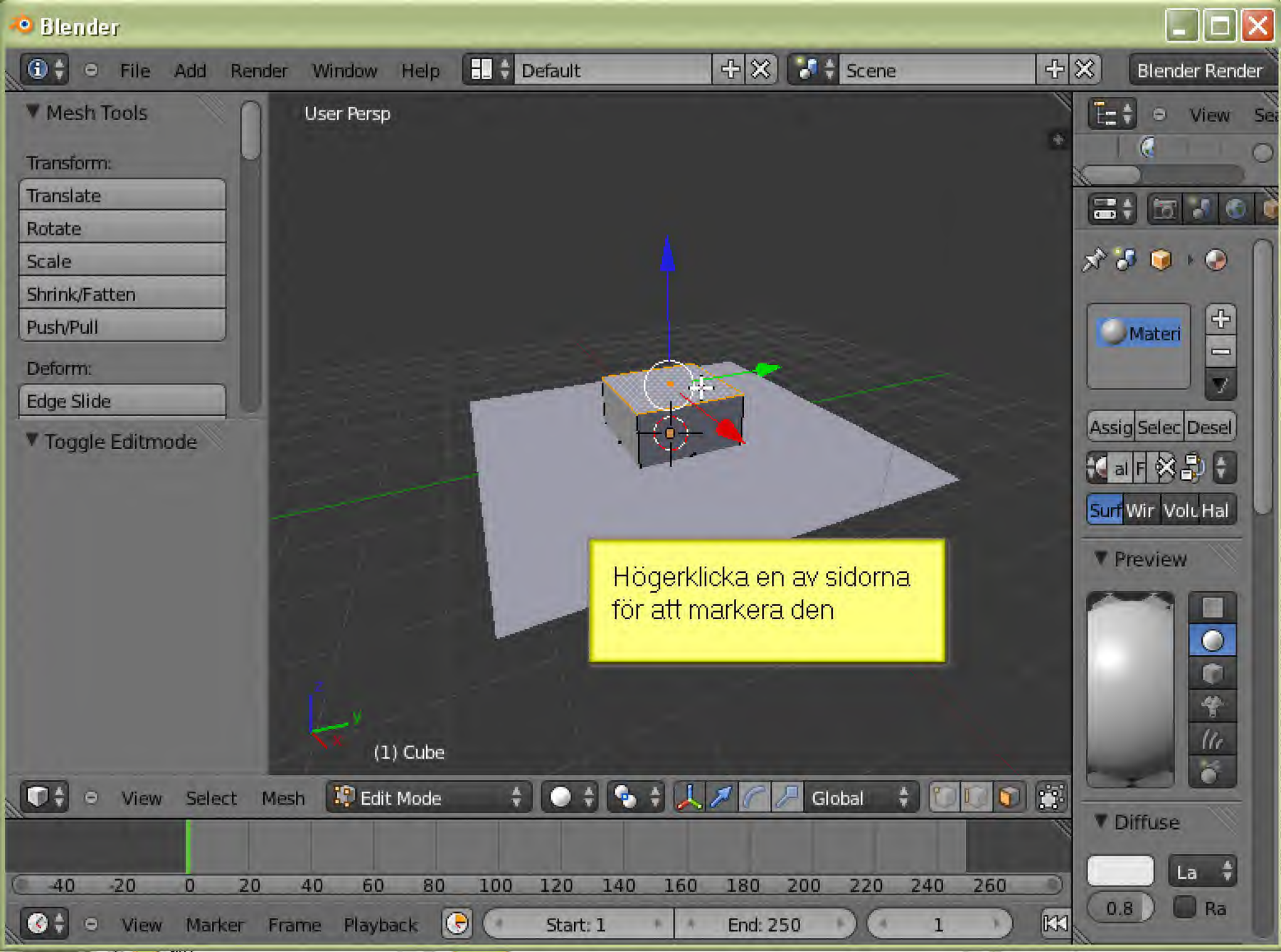
Diffuse

Face select - Shift-Click for multiple modes

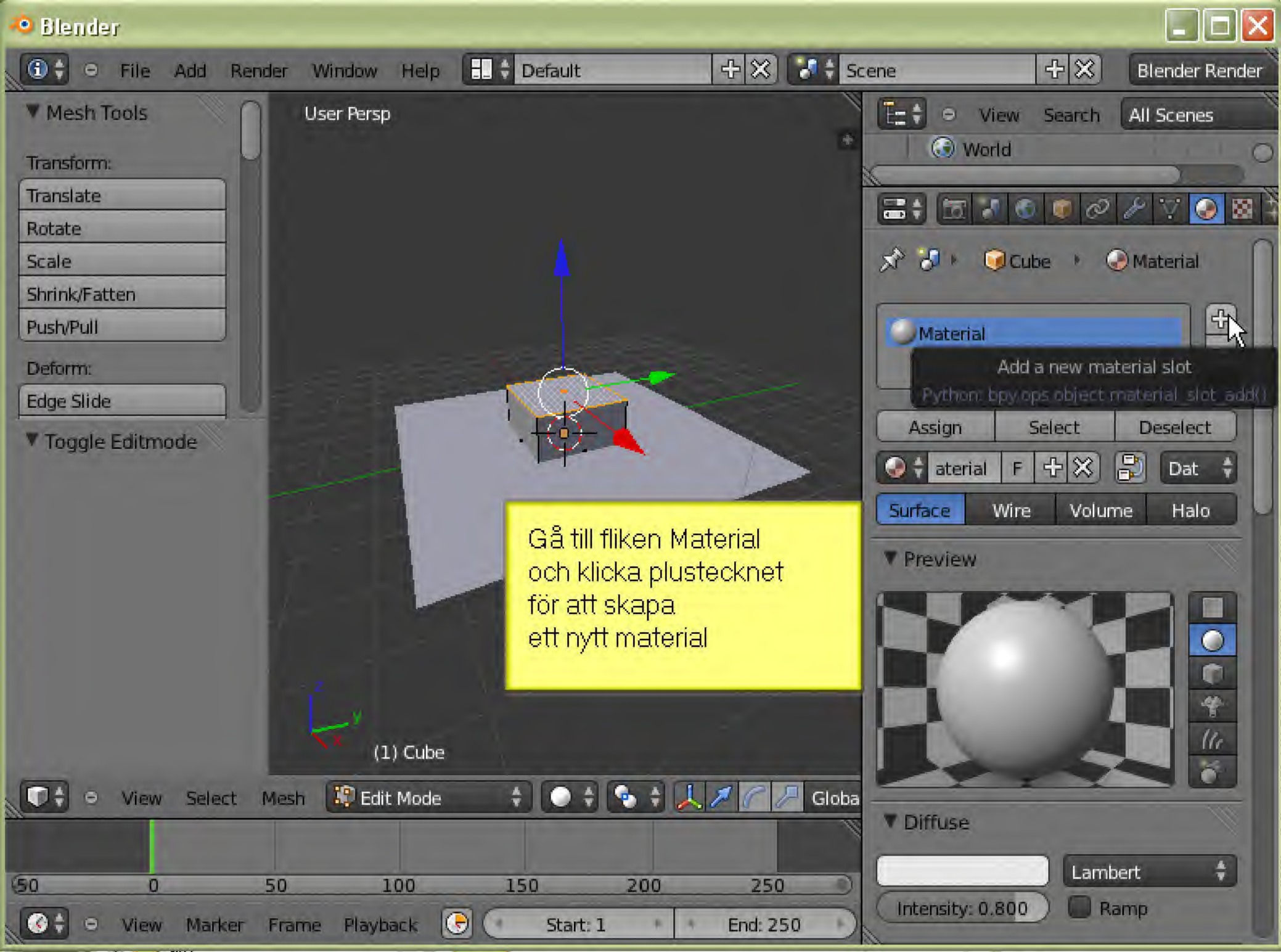
0.8

La

Ra



Högerklicka en av sidorna
för att markera den



File

Add

Render

Window

Help



Default



Scene



Blender Render

▼ Mesh Tools

Transform:

Translate

Rotate

Scale

Shrink/Fatten

Push/Pull

Deform:

Edge Slide

▼ Toggle Editmode

User Persp

(1) Cube



View

Select

Mesh

Edit Mode



Global



View

Marker

Frame

Playback



Start: 1

End: 250



View

Search

All Scenes



World



Cube

Material



Material



Add a new material slot

Python: bpy.ops.object.material_slot_add()

Assign

Select

Deselect



aterial

F



Dat

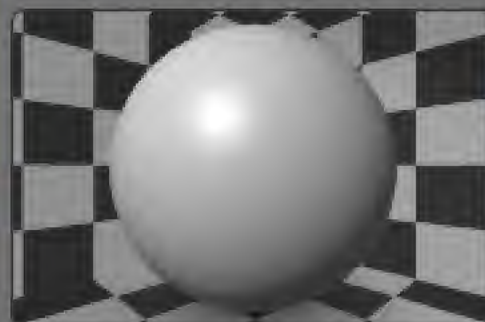
Surface

Wire

Volume

Halo

▼ Preview



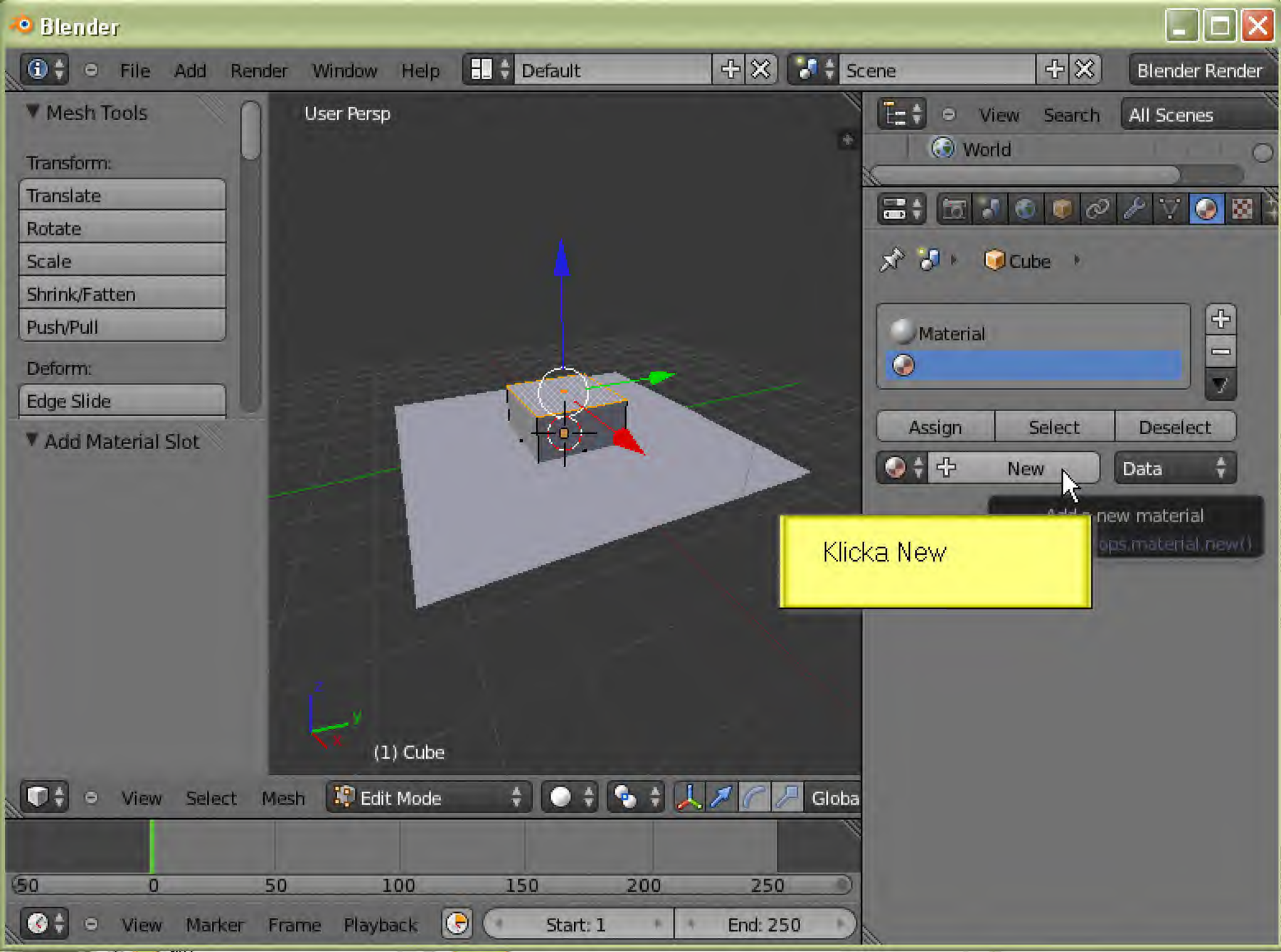
▼ Diffuse



Lambert

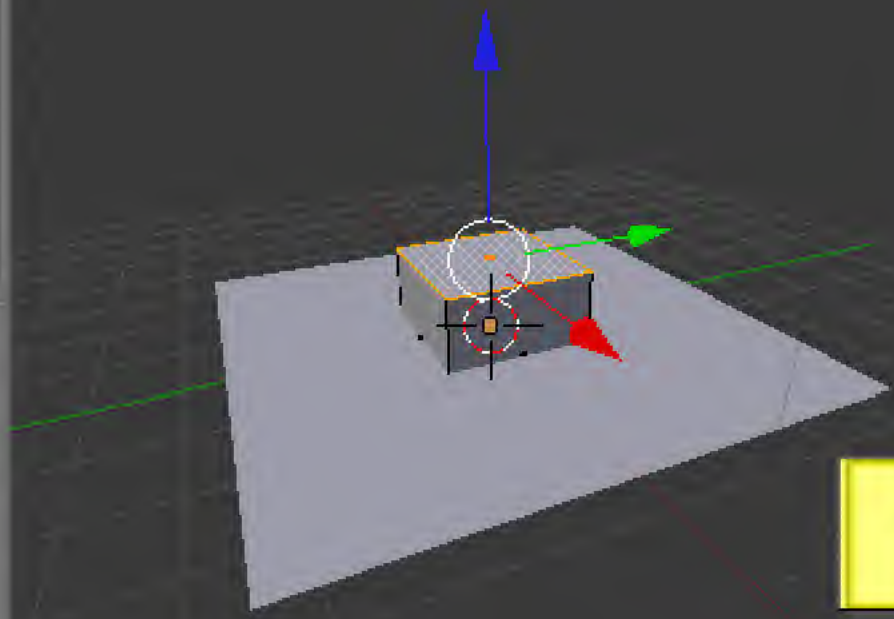
Intensity: 0.800

Ramp



- ▼ Mesh Tools
- Transform:
- Translate
 - Rotate
 - Scale
 - Shrink/Fatten
 - Push/Pull
- Deform:
- Edge Slide
- ▼ Add Material Slot

User Persp



View Search All Scenes

World

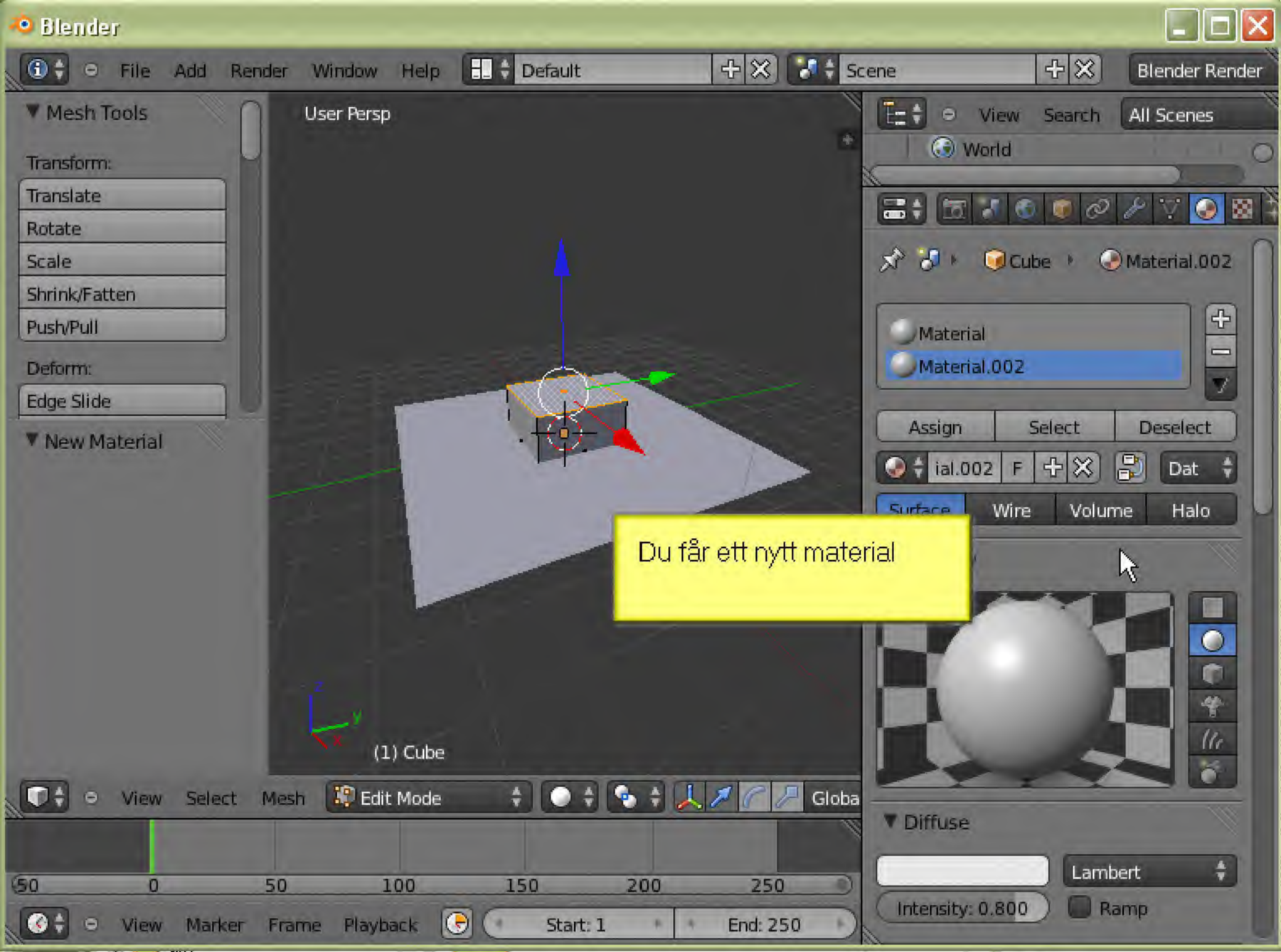
Cube

Material

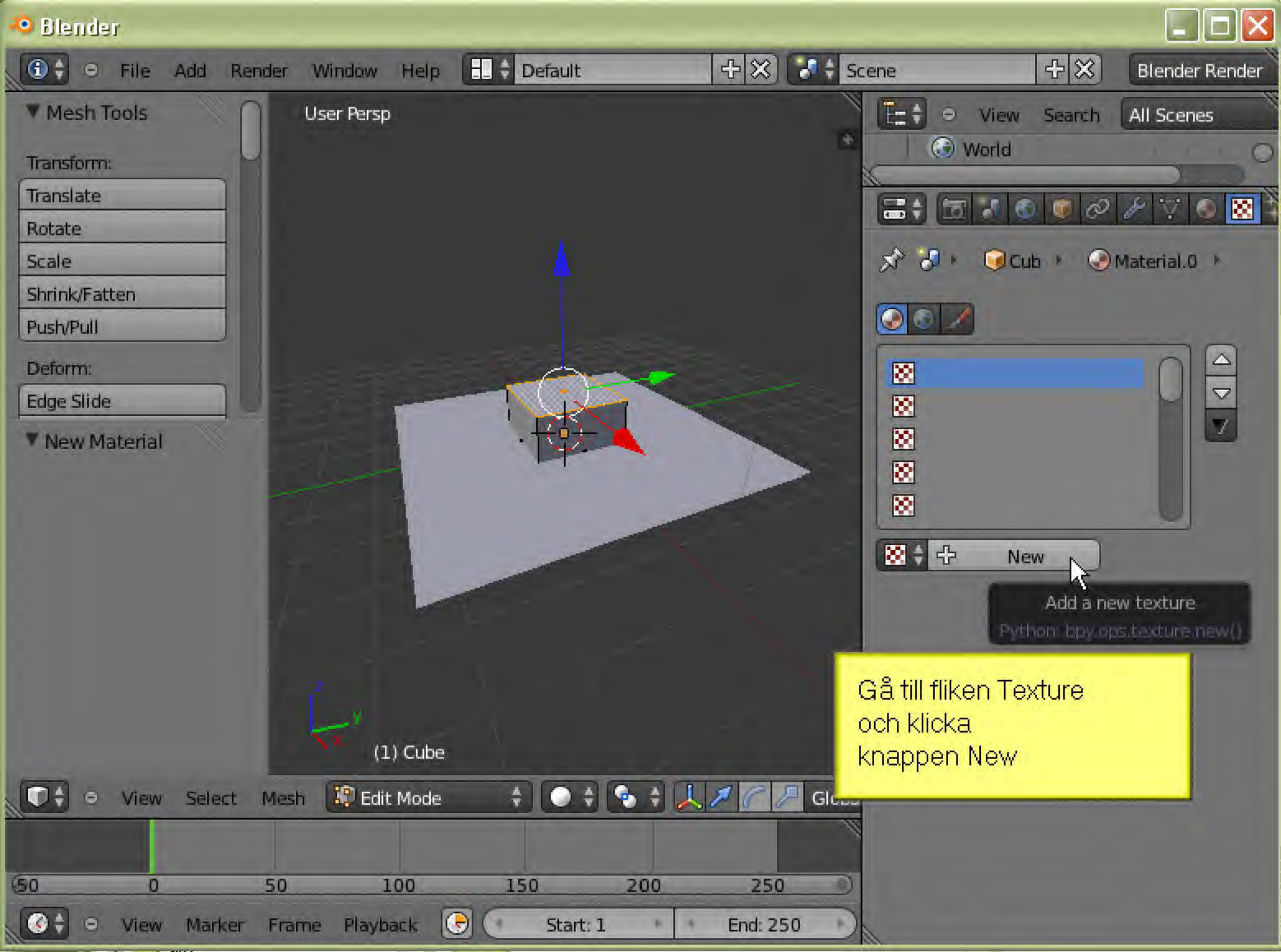
Assign Select Deselect

New Data

Klicka New



Du får ett nytt material



▼ Mesh Tools

Transform:

Translate

Rotate

Scale

Shrink/Fatten

Push/Pull

Deform:

Edge Slide

▼ New Material

User Persp

(1) Cube

View

Search

All Scenes

World

Cub

Material.0

New

Add a new texture

Python: bpy.ops.texture.new()

Gå till fliken Texture
och klicka
knappen New

View

Select

Mesh

Edit Mode

View

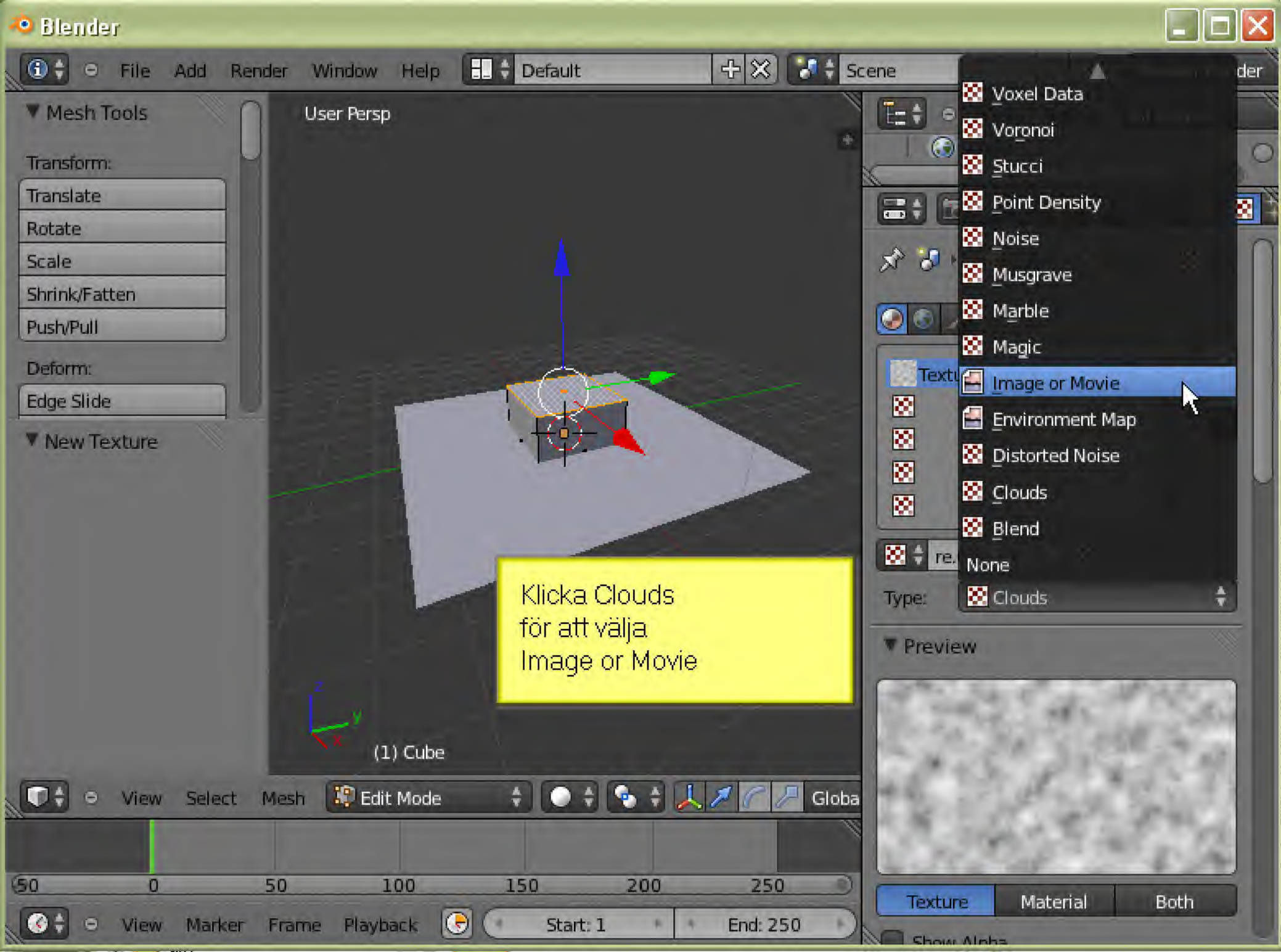
Marker

Frame

Playback

Start: 1

End: 250




- ▼ Mesh Tools
- Transform:
- Translate
 - Rotate
 - Scale
 - Shrink/Fatten
 - Push/Pull
- Deform:
- Edge Slide
- ▼ New Texture

User Persp

Klicka Clouds
för att välja
Image or Movie

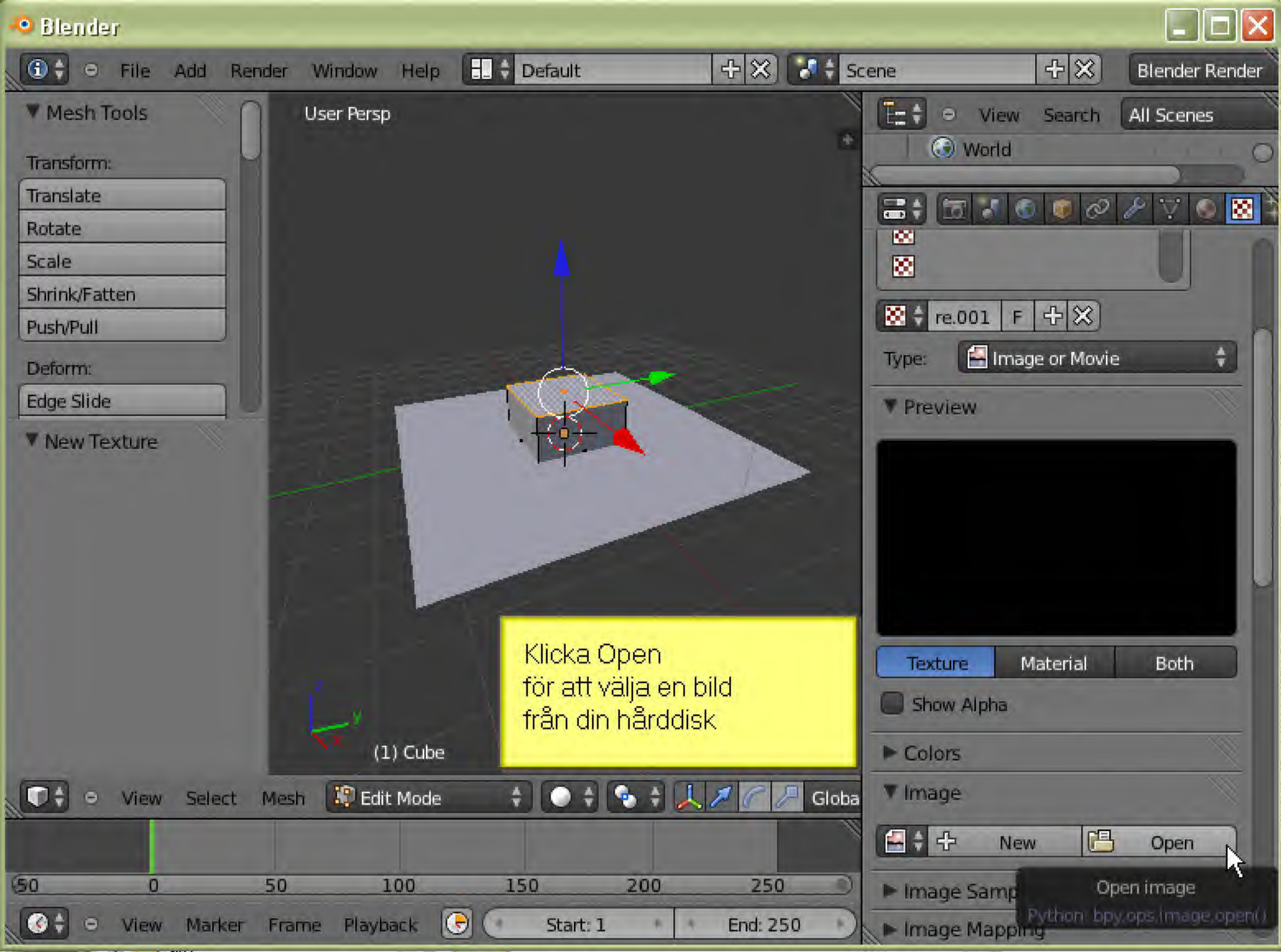
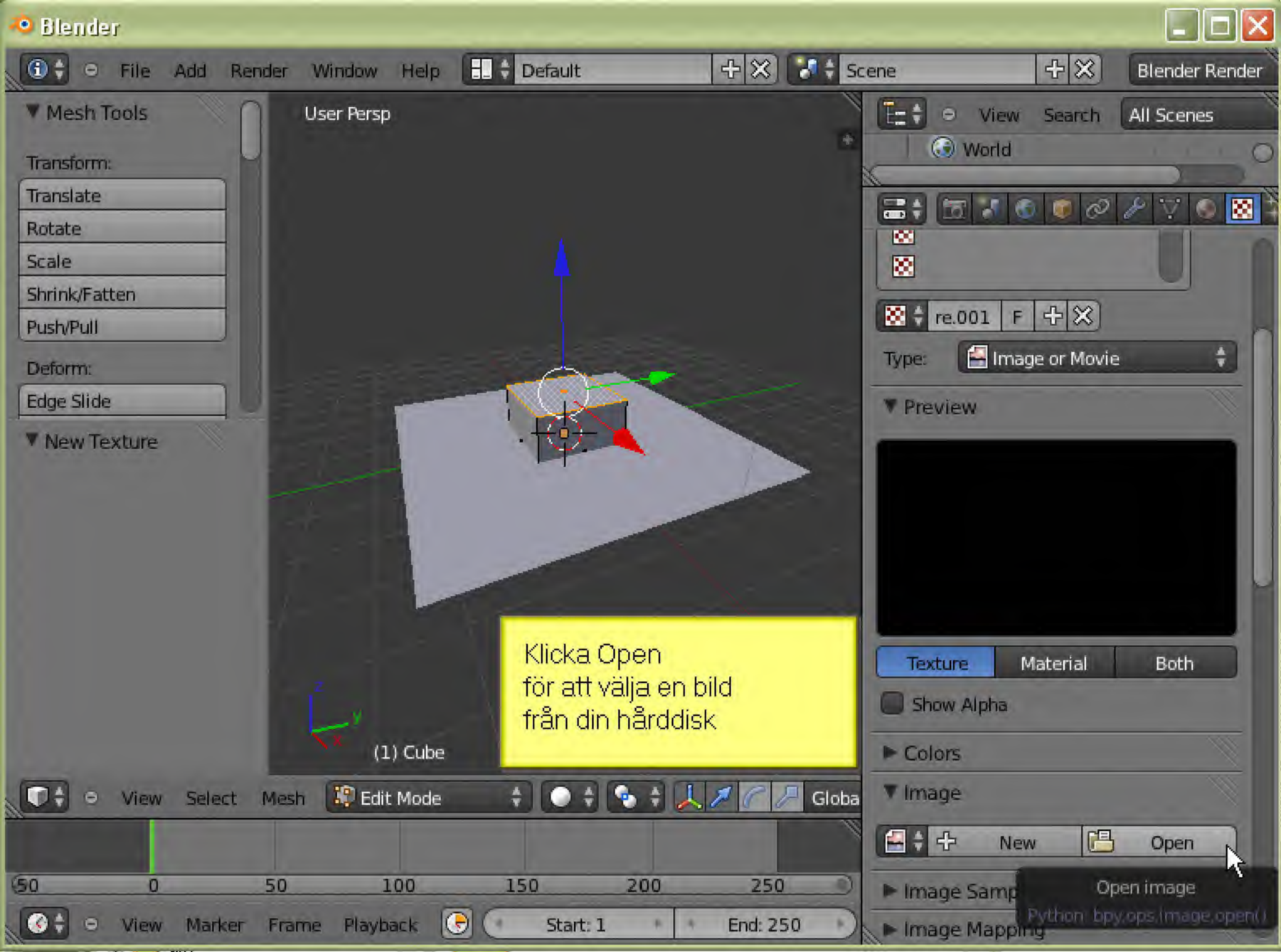
- Voxel Data
 - Voronoi
 - Stucci
 - Point Density
 - Noise
 - Musgrave
 - Marble
 - Magic
 - Image or Movie
 - Environment Map
 - Distorted Noise
 - Clouds
 - Blend
 - None
 - Clouds
- Type:

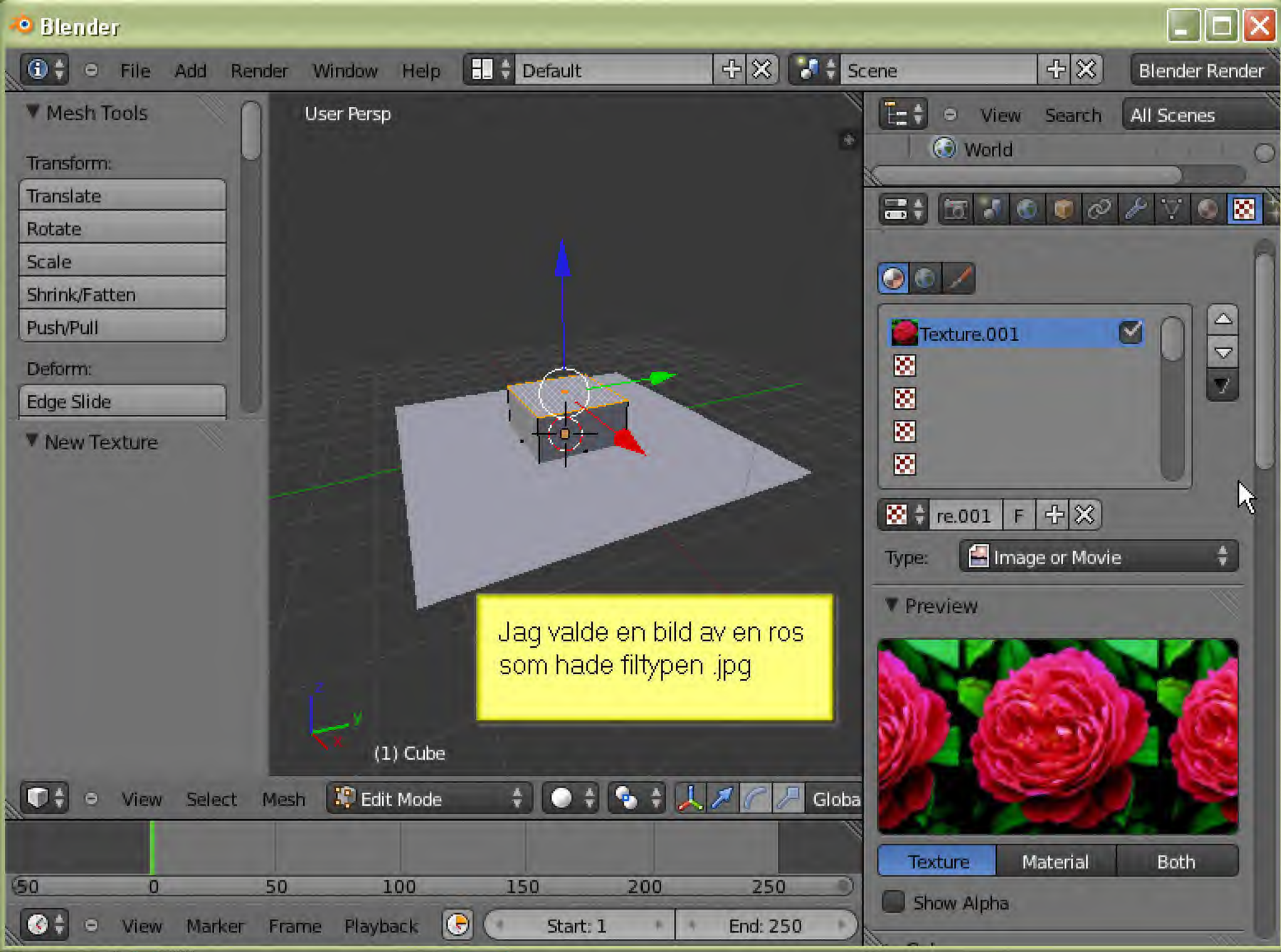
▼ Preview

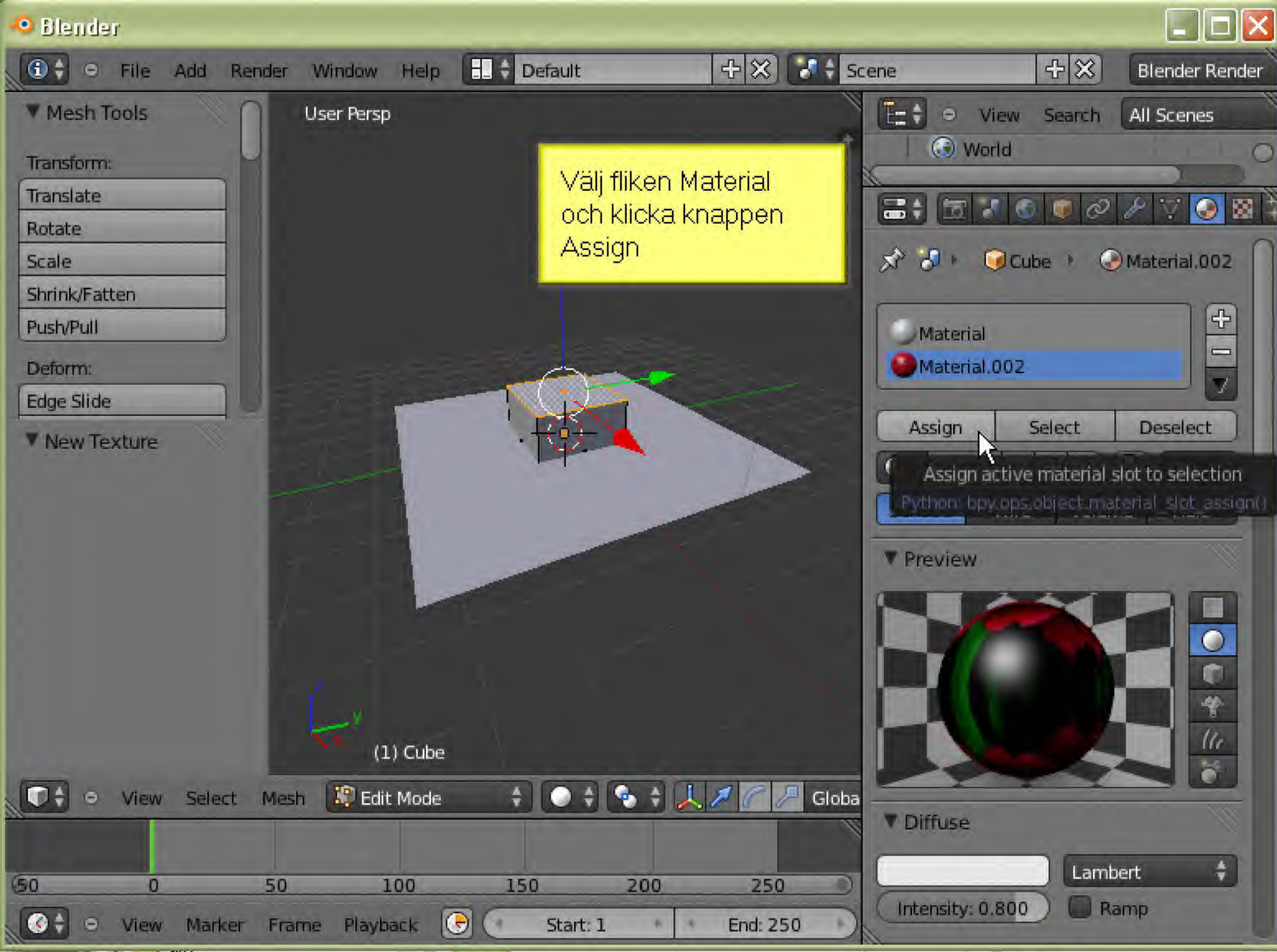


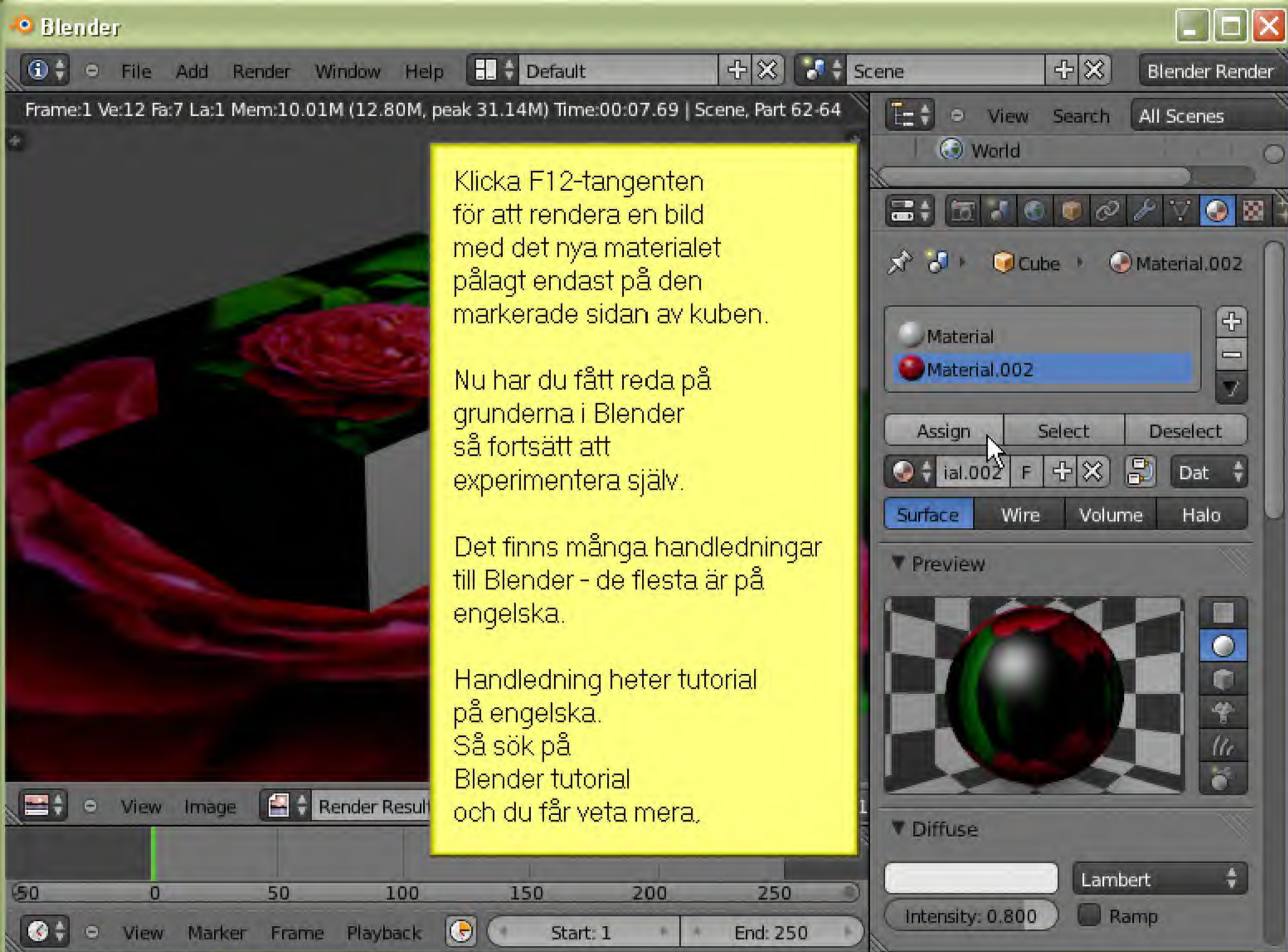
Texture Material Both

Show Alpha









Klicka F12-tangenten
för att rendera en bild
med det nya materialet
pålagt endast på den
markerade sidan av kuben.

Nu har du fått reda på
grunderna i Blender
så fortsatt att
experimentera själv.

Det finns många handledningar
till Blender - de flesta är på
engelska.

Handledning heter tutorial
på engelska.
Så sök på
Blender tutorial
och du får veta mera.